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The China Medical Missionary Journal.

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The China Medical Missionary Journal.

VOL. VII.

MARCH 1893.

No. 1.

Original Communications.

[No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editor on the first day of the month preceding that in which they are expected to appear. A complimentary edition of a dozen reprints of his article will be furnished each contributor should he so desire. Any number of reprints may be had at reasonable rates if a *written* order for the same accompany the paper.]

SURGERY IN CHINA.

(Continued).

By JOHN C. THOMSON, M.A., M.D., *Edin., Alice Memorial Hospital, Hongkong.*

Continuation of Section I.—THE HISTORY AND PRESENT

POSITION OF CHINESE NATIVE SURGERY.

*Chinese Theory of Surgery.**

The Chinese have a phrase "Shen Fah," which means "hand methods," or, more freely, the methods of employing the hands in the operations requiring their use, which phrase is a fair equivalent of our word "Surgery," though they use the term in a much more limited sense. According to the Golden Mirror of Eminent Medical Authors previously referred to, the operations of surgery are eight in number, viz. :—

- | | |
|----------------------------------|------------------------------|
| 1. Palpation. | 5. Depression of Elevations. |
| 2. Reduction of Fractures. | 6. Shampooing. |
| 3. Reduction of Dislocations. | 7. Pushing Outwards. |
| 4. Elevation of Depressed Bones. | 8. Grasping. |

For the practice of each of which minute directions are given, though to small purpose, if the numerous cases of maltreated fractures and dislocations that come under my notice in Hongkong form any gauge of the average practitioner's handiwork. Necessity has compelled the contrivance of ten forms of surgical apparatus, which with the nine acupuncture needles form the surgeon's complete armamentarium, as follows :—

1. *Bandages* ;
2. *A Wooden Cudgel* for application to the soles of the feet, evidently as a stimulant in cases of insensibility from any cause ;

* Chinese Chrestomathy, p. 525 ; China and the Chinese, vol. ii., p. 71 ; The Chinese as they are, p. 224 ; Memoirs of Father Ripa, p. 67 ; China Medical Missionary Journal, vol. iv., p. 192.

3. *The Broad Supporter*, a sort of splint of cowhide, five inches long by three inches wide, bound by strings to a wounded part ;

4. *Climbing Cords*, suspended loops by which to take hold as if for climbing, and used in combination with the following,

5. *Piled Bricks*, as shown in the accompanying illustration. Their use seems to be much the same as the Western methods of suspension in the application of apparatus for the treatment of some spinal troubles. In the illustration the surgeon is represented making the necessary manipulations previous to his applying the lumbar splints, about to be described, while an assistant removes or replaces the bricks under one foot of the patient or the other according to directions from his superior ;

6. *Back Splint*, made of pine wood, three inches broad, extending from the loins to above the shoulders, and shaped so as to fit the spine ; used in displacements of the vertebrae ;

7. *Lumbar Splint*, composed of four thin slips of bamboo connected by strings, so as to form a sort of corset ;

8. *Belt of Bamboo Slips*, resembling the Gooch splint of the West ;

9. *Pine Compresses*, seemingly exactly the same as the lumbar splint, excepting in respect of their use, which is to close and compress a wound ;

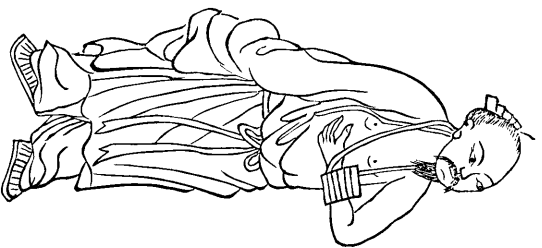
10. *Knee Cap*, a bamboo ring, with four projecting pieces of bamboo, bound over the knee, so as to fix the joint or steady a fractured patella.

In connection with the subject of fractures and dislocations, one is tempted to quote in full Father Ripa's * now classical personal experiences of Chinese surgery during his travels in North China in the early years of this century but the passage is lengthy. Suffice it, therefore, to illustrate the treatment of a displaced rib :—

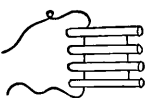
“ A third operation was now performed, during which he made me, still stripped to the waist, walk in the open air, supported by two persons ; and, while thus walking, he unexpectedly threw a bowl of freezing cold water over my breast. As this caused me to draw my breath with great vehemence, and as my chest had been injured by the fall, it may easily be imagined what were my sufferings under this infliction. The surgeon informed me that, if any rib had been dislocated, this sudden and hard breathing would restore it to its natural position. The next proceeding was not less painful and extravagant. The operator made me sit upon the ground ; then, assisted by two men, he held a cloth upon my mouth and nose till I was nearly suffocated.

‘ This,’ said the Chinese *Æsculapius*, ‘ by causing a violent heaving of the chest, will force back any rib that may have been bent inwards.’ ”

* *Memoirs of Father Ripa*, p. 67.



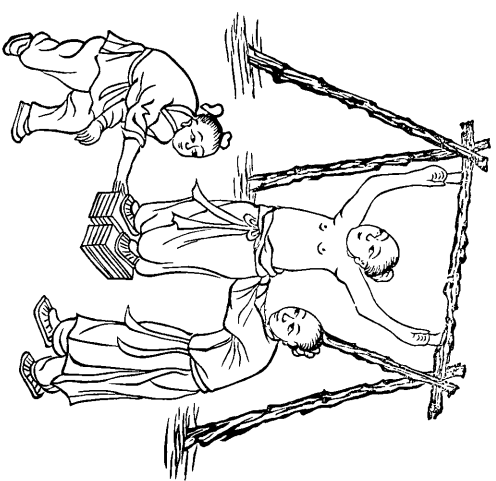
Splint of Bamboo Slips applied.



Lumber Splint.
Pine Compresses.

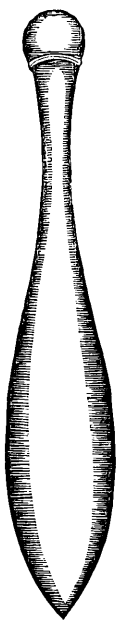


Splint made of
Bamboo Slips or Matting.

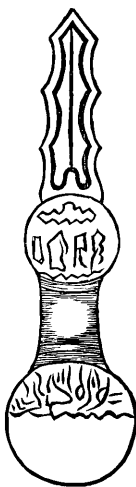


Climbing Cords and Piled Bricks.

Copied from "The Chinese as They Are."



Massage Bat.



Massage Pestle.

Copied from Dr. MacGowan's Article.

*Chinese Movement Cure.**

The sixth operation of surgery, which I have rendered "Shampooing," is worthy of more than passing notice, since in addition to the general idea of massage it has developed into a science resembling in some respects, and rivaling in detail at least, the now famous Swedish Movement Cure. Massage in its simpler form, consisting of tapping, kneading, pinching, chafing, and pommelling the body all over, is widely used as a remedy for muscular fatigue, nervousness, headache, paralysis, pelvic disorders, labour, etc., and also as a simple luxury, the barbers being the operators and concluding their daily shaving and dressing operations with a sound pommelling to the back and limbs of such of their patrons as can afford to pay for it.

This, as well as the more complicated system of massage combined with air-swallowing and muscular exercises, is of great age, being traced not to the usual Hwang Ti (2697 B.C.) legendary though that emperor be, but some twelve centuries beyond him. Into the history of the system, however, I shall not here enter, referring for that and for a full description of its theory to a paper on the subject by D. J. Macgowan, M.D., Wénchow, in the Customs Medical Report, No. 29, 1884-85; and here passing directly to a brief account of the frictions and movements themselves, taken from that paper.

The period of air-swallowing and friction exercises is to be divided into three parts of one hundred days each. After certain preliminary carefully described inhalations of the sun's air on the first of the moon, and of the moon's air at the full moon, all is ready for a commencement being made. During the first month friction is to be made by two youths, each on alternate days, they rubbing the patient's abdomen with the right hand and from right to left, at first lightly, but gradually increasing the pressure, and this for an hour three times daily. By the end of the first month the services of the youths may be dispensed with, when a form of shampooing is to be practised by the patient himself, thumping his ribs with a bag filled with waterworn pebbles, weighing a pound, three times daily. During the third month a pestle about six inches long, or a round bat somewhat longer, is to be employed for pounding the abdomen three times a day; they are to be made of hardwood, and their form is to be as shown in the illustration. Meanwhile friction and pounding the ribs is to be continued. During the fourth month the bat and pestle are to be alternately used along with friction, and this completes the first period of one hundred days.

From the fifth month of the exercises the bag of pebbles is to be used continually till the close of the eighth month, which closes the second period of a hundred days. During the third period the back is to be pounded in

* China Medical Missionary Journal, vol. iv., p. 186; Customs Medical Report, No. 29, p. 42.

like manner. During the whole three hundred days it is directed that continence be maintained, except once between the hundred-day periods; and ever afterwards, except once in fifty days.

On completing these exercises, muscular movements are to be commenced, of which there are twelve kinds, namely:—

I. Stand erect and firmly, retain the breath, bring the flexed hands together on the chest, knuckles meeting, keeping the mind at absolute rest.

II. Stand on the toes and extend the arms literally, with eyes fixed, mouth closed, and mind perfectly quiescent.

III. Maintaining the tiptoe posture, raise the arms above the head and bring the hands together with palms turned upward, joints closed, tongue pressing roof of mouth; clench the fists and bring the arms firmly and slowly down.

IV. Raise one arm above the head, palm hollowed, eyes directed towards it, inhaling through nostrils, and forcibly and slowly bring down the arm. Repeat with the other arm.

V. As if pulling the tails of nine bulls, stand on one foot bent and extended forwards, the other extended backward; cause the air of the pubic region to move forcibly, thrusting one arm forward, the other backward, eyes fixed on the clenched fist. Repeat, reversing the legs.

VI. Extend the arms forward, as if pushing out and drawing in, seven times.

VII. Head inclined, with a hand stretched behind the neck. Repeat with other hand. Maintain erect posture, with gentle breathing.

VIII. Sit with legs wide apart, pressing the hands on the floor, and forcibly raise them, eyes fixed, mouth closed; rise and bring the feet together.

IX. Turn the arms alternately across the chest, fixing eyes on the hands, the mind meantime settled.

X. Assume the posture of the "crouching tiger," one knee bent, the other stretched backward, head turned upward, palms resting on the ground.

XI. Bend forward, placing the hands at the back of the head, so as to cover the ears; close the teeth, press roof of mouth with tongue.

XII. Finally, keeping legs erect, bend forward, with fixed eyes and upturned head, the hands clasped on the ground; rise; stamp twenty-one times, and stretch the arms alternately seven times; then sit cross-legged, each leg in turn, with closed eyes.

The above exercises are to be performed three times daily for an indefinite period, and with them are to be gone through certain supplementary exercises for the development of individual groups of muscles, which Dr. MacGowan describes in detail. Exercise is recommended to be taken in the open or in woods, and it is again and again provided that in going through

the exercises there is to be no thinking: the mind must be absolutely quiescent.

In conclusion, regret is expressed that owing to the business vocations or inconsiderateness of youth, this means of averting disease is deferred till old age, when it can be of no avail.

*Obstetrics.**

The subject of Chinese obstetrics is from the physician's point of view an interesting and a wide one, but in its surgical aspect a vanishing point. Midwifery is left almost exclusively in the hands of ignorant women, and the harm done by them in cases presenting the slightest difficulty is incalculable. Death to mother and child is the ordinary ending of any case in which nature fails to expel the fœtus.

Huge lacerations of perineum, vagina, and cervix are among the minor evils of their "surgery": uterine rupture not unfrequently attends their meddling. In two cases of cross presentation I found the child's arm torn right off, in one case at the elbow, in the other at the shoulder. When the head presents, and, on account of pelvic deformity or otherwise, does not pass the brim, they are simply helpless, but do not say so until the patient seems dying, and one is often called to cases of this description where labour has already been a week or more in progress.

Dentistry.†

Dentistry in China like most other subjects that have come under consideration is of hoary age, but is very imperfect, and is mixed up with deception on the part of its professors on all hands.

The cause of toothache is the presence of worms in the teeth:—the dentist having scarified the gum, and meantime deftly introduced certain artificial worms to the mouth with the spatula he is using, leisurely and gravely picks them out, and exhibits them to his patient, who is usually for the moment cured by the combined influence of the bleeding and the mental effect of having himself seen the cause removed.

A tooth is to be extracted: a "loosening powder," perfectly inert excepting when calomel is an ingredient, is applied to the gum; and then the dentist, ingeniously diverting the patient's attention by external manipulations with the left hand, with the right extracts the tooth either with the fingers or by means of a pair of coarse forceps he applies concealed under a cloth. It is stated that extraction can only be accomplished when the tooth is already more or less loose, and that a tooth firm in its socket is beyond the powers of the Chinaman, who meeting such can only resort to his worm theory and cure the pain.

* China Medical Missionary Journal, vol. iv., p. 187; Gordon's Epitome, p. 315.

† China Review, vol. iii., p. 254; vol. v., p. 224; Chinese Sketches, p. 31; China Medical Missionary Journal, vol. iv., p. 182.

The insertion of artificial teeth, though rude in both its methods and results, seems at least to be one honest department of the Chinese dentist's art, and was practised in China ages before its introduction into Europe, made of bone or ivory. The tooth is fastened to an adjoining one by means of copper wire or catgut string; while if more than one are wanted they are made in a single piece, and similarly fixed by a wire or string passing through the compound tooth and attached to such natural teeth as may remain in the jaw.

*Inoculation.**

Inoculation for small-pox has been practised in China, where it would seem to have originated, since the close of the tenth century or the beginning of the eleventh, and is almost universal, excepting where it is being displaced by the milder prophylactic, vaccination, which was introduced at Canton in 1805 by Mr. Alexander Pearson, a surgeon of the Honourable East India Company's Service.

The usual age for inoculation is one year, and methods vary, but the most common are four:—

1. The lymph or crust is rubbed down with water, and a pledget of cotton impregnated with this solution inserted into the child's nose;
2. Crusts are dried, reduced to powder, and a small quantity of the powder blown up the nose;
3. The child is dressed in clothes that have been worn by a small-pox patient;
4. A wet nurse is employed who has just nursed a child with small-pox.

When the operation is successful, in seven days the child becomes feverish, and in three days more the spots appear: when unsuccessful, it is usually repeated on the fourteenth day.

Syphilis.†

Syphilis and other venereal diseases were observed and described in China in most ancient times, syphilis having been prevalent in South China at least as early as the ninth century, while gonorrhoea and soft chancres, with their attendant buboes, cystitis, nephritis, and epididymitis, are described at a very much earlier period even than that.

Syphilis seems, indeed, to have originated at Canton. Tou Hou-ch'ing ‡ in his *Dermatology*, written in the eleventh century, says:—

* *Medical Missionary in China*, p. 238; *Murray's China*, vol. ii., p. 86; *China Medical Missionary Journal*, vol. i., p. 157; *Gordon's Epitome*, pp. 74, 76, 78, 80, 272, 297, 299.

† *Customs Medical Reports*, No. 9, p. 40; No. 27, p. 12; *China Medical Missionary Journal*, vol. iv., p. 194.

‡ *Notes on Chinese Literature*, p. 82.

"Venereal ulcers were formerly unknown. An examination of their origin shows that they arose in Canton towards the close of the Wu Wei period, and calamitously overspread the land; and now, in the early part of the present cycle, the human frame has deteriorated, and the seasons are irregular, and sexual intercourse is very liable to communicate the syphilitic poison. Once effected, the morbid action is of more than ordinary violence, penetrating the marrow of the bones and permeating the muscles, flowing into the blood-vessels, and entering the male and female genitals, or abiding in the system or coming to the surface, or attacking the intestines or the orifices (*i.e.* eyes, nostrils, mouth, ears, arms, urethra). There are some lesions that from beginning to end remain in one place, and there are some that move to other regions; some that leap from one viscus over one adjacent to a more distant one, and some that remain fixed in one organ. The various appearances are numerous, each requiring its special treatment."

It was certainly from Canton that the disease spread over the rest of the empire, while from Canton there was an easy passage for it on board the trading junks to Japan, where it is heard of at the very beginning of the ninth century, and an equally ready mode of propagation westwards by caravans or the vessels of the Arabians, who even earlier than this were carrying on a considerable traffic between Canton and the Arabian Gulf.

That syphilis had its genesis in China may be open to question: but certain it is that the Chinese first adopted its mercurial treatment, not only the drugs but even the methods used for ages being practically identical with those most prevalent in the West to-day.

The great controversy, still in progress, as to the merits of this treatment, too, was opened in Far Cathay. One of the last clinical lectures I heard in the Edinburgh Infirmary was a discussion as to whether mercury should be used in the treatment of syphilis or not, and the lecturer, then surgeon in charge of the Lock Wards, while still using the drug, expressed his belief that its efficacy is but small, and its evil effects considerable: we find Tou Hou-ch'ing seven or eight hundred years ago discussing the very same question, answering it most emphatically in the negative, and professing his own ability to neutralize the effects of the mercurial poison in the case of those who already had been subjected to it in course of treatment by other physicians. "I, on the contrary," he says, "am able also to expel the mercurial poison, so that to the end of his days the patient shall not suffer."

Moreover, it is stated in the Golden Mirror of Eminent Medical Authors (1717 A.D.) that, while mercury appears to effect a speedy cure, it merely drives the poison into the bones, whence, after a protracted lodgment, it reappears in the forms that we designate secondary and tertiary. In spite of

the strictures on mercury, however, it has retained its position as a standard mode of treatment both in China and in Edinburgh, and in the former the popular belief is that the salivation is the syphilitic poison flowing out.

As to Chinese methods of using it, we may pass over its internal administration in various forms, but it is noteworthy that it has been extensively used for ages in the form of fumigation and mercurial vapour baths, local and general, just as is most fashionable in some quarters of the West at the present moment.

As an efficient fuming prescription, take the following :—

Lead, mercury, ᳵᳵ one mace ;

Cinnabar, olibanum, myrrh, ᳵᳵ five candareens ;

Dragon's blood, realgar, wood of aquilaria agallo-chum, lign aloes, ᳵᳵ three candareens.

(*N.B.*—One candareen=·0133 oz. avoirdupois, and one mace=ten candareens=·1333 oz. avoirdupois.)

To be pulverized, wrapped up in paper to form a wick, and put in a lamp.

The patient is to be covered over, and while the vapour bath is in progress successive mouthfuls of cold water are to be taken and frequently renewed as it becomes warm. Inhalation is to be through the nose, and the object of the cold water is to preserve the teeth from the influence of the mercurial poison. The treatment is directed to be followed three times on the first day, and once daily afterwards.

To remove syphilitic blotches and for syphilides, alum and rhubarb in equal parts are mixed with water, and rubbed on the affected part, the theory held by many being that secondary and tertiary symptoms are not so much a further development of the disease as the result of the use of the calomel. In fact, as a matter of routine, after cure seems to have been accomplished drugs are taken with the object of driving the calomel out of the system, a usual prescription being a combination of Chiuaroot (*Radix Smilacis*) with Red Pepper (*Xanthoxylum Alatum*), the rationale of whose action is that the calomel is supposed to combine with the Red Pepper, and so pass off from the system per anum.

Such in outline is the history of Chinese Native Surgery and its present status, culled from the various authors indicated, read in the light of my own experience of the Chinese. The result of my effort to thus bring together in a concise form what is known on the subject is, I trust, to add a not entirely uninteresting chapter to the history of the world's surgery ; and its importance lies in the fact that an intelligent knowledge of what has been and is, is a very essential qualification in those who would aid in establishing a new and better order of things.

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(To be continued.)

A CASE OF BRAIN SURGERY.

BY ROBERT COLTMAN, JR., M.D., *Teng-chou-fu.*

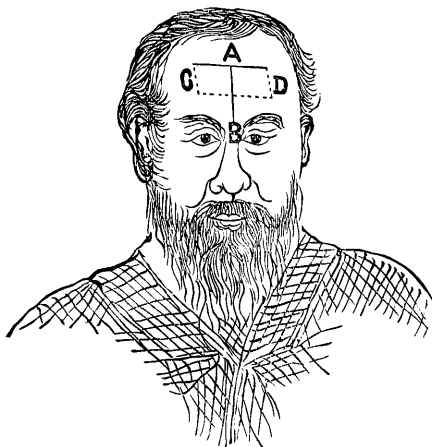
On the 26th of December last I was called in consultation by Dr. P. G. Cornish of Flagstaff, Arizona, U. S. A., to see with him a man who had been severely injured in a fight. We proceeded by railroad to Canon Diablo some thirty miles distant, and were met at the station by the man who had done the injury, with the remark "Doctors I've killed a man I guess, but he deserved it."

Our informant had a whiskey bottle half full in one hand, a plug of tobacco a foot long in the other, and with his trowsers stuck in his boots, hat on one side, and bloodshot eyes was a typical cowboy on the rampage. He led us to a section house about a hundred yards back of the station, up one

flight of stairs, and there by the light of a smoking kerosene lamp we beheld a horrible sight. A poor Mexican half sitting half reclining on a rough wooden plank bed, his forehead battered in, his swarthy face and black beard full of blood, eyes black, and swollen as large as hens eggs so that it was impossible to open them. As he could not understand any English we sent our drunken guide to hunt for an interpreter, and while he was gone we washed his face and head. We found he had been struck a frightful blow with the barrel of a Winchester rifle, right on the forehead, making a somewhat slanting wound three and a half inches in length diagonally across the forehead from right to left.

The section boss soon came in to interpret, and the man who was fully conscious was told to keep still while we explored the wound. First washing our hands in a 1 to 1,000 bichloride solution we introduced a finger, each in turn, and came to the conclusion the skull was badly comminuted. That much depression existed, and that an operation was imperative. Our interpreter explained to the man the danger of delay, but he would not hear advice and told us he would not submit to any operation. As we could not return to Flagstaff that night, we secured lodging in the camp of a sheep farmer near by, and after cleansing the wound and applying several layers of wet bichloride compresses left him.

He suffered greatly during the night and at daybreak sent us word to come and do what we thought best. After breakfast we visited him and found him still conscious but in great pain, temp. 101°.5, pulse 100° and intermittent. We at



once etherized him and enlarged the wound by an incision from A to B in accompanying diagram, this enabled us to fully expose the injury. As there were several pieces of bone lying loose in the wound we were not obliged to trephine but picked these out exposing the dura mater much torn and ragged. The fractured plate C-D was driven into the brain

substance causing a linear hernia of mangled brain substance denuded of meninges an inch and a half long. This we concluded was injured beyond repair and taking a sharp knife pared it off along the line of fracture, it weighed perhaps 30 or 40 grains. Then with elevators we succeeded in raising the larger fragment into its proper place. Several spiculae of bone were removed by bone forceps and then the wound was flooded by a warm 1 to 4,000 bichloride solution, and closed by interrupted suture leaving the bottom of the line A B open for drainage, but covered with a half dozen layers of bichloride lint, the whole covered with waxed paper. His recovery was uninterrupted and on January 18th, twenty-three days after the operation, he was going around the house and yard, as though nothing had happened. Up to that time no symptoms of epilepsy, forgetfulness nor in fact any symptoms of brain injury had appeared. As I left Flagstaff on January 20th, I do not know his subsequent history. His assailant who remained in the room all during the operation in custody of the sheriff seemed much interested in the proceedings, once he remarked "Doctor please don't let the poor monkey die." He was acquitted on the ground of self-defence though from all accounts the attack was made in the pure wantonness of drunken frenzy.

THE TWO EXTREMES.

BY EDGAR WOODS, JR., M.D., *Tsingkiangpu*.

There is probably nothing so unsatisfactory to the missionary doctor as the treatment of opium suicides. So many cases cry "wolf, wolf" when there is no wolf, and again neighbors and youngsters to see some fun and how the foreigner will act, will put off for him post haste when a case of suicide occurs. A pitiful story is put up and the doctor thinks there is a life to save and follows the messenger, only to meet with cold suspicious looks on the part of the family and find he is not wanted. A glance round for his messenger and he has cleared out, making the foreigner appear as though he has forced himself upon them. Often when the doctor does attend, it is like drawing an eye tooth to get relatives of the suicide to do what is necessary for the patient my experience has been that without my native teacher I cannot turn a cog. Two widely differing cases about the worst and best I ever had, I recount.

The last day of the Chinese year there was an urgent call at our gate to come to a suicide. I generally have my teacher enquire into the case to see if it is genuine and whether the messenger is a member of the family, as I have been fooled so often. This time though as the day was fast fading away, leaving just enough light to let us see that the man looked respectable and as he pressed us so eagerly to hurry, we started without any questions. A long walk

was before us, over both forks of the canal, down the street to the east gate, a long stretch through the city, then out the west gate over muddy flag stones and to cap the climax, 50 yards more over a by-path through mud ankle deep. My poor teacher, Li, not having his boots, had a hard time of it and fell behind us. Just as we reached the muddy path, our guide quickened his steps and calling back to us, "Just here it is," he disappeared among a group of straw houses. Several minutes elapsed before Li caught up and we made for an open gate through which a light was faintly streaming. As we entered, a man met us and Li asked, "Where is the man that wanted us to see a suicide." "I don't know" was the reply, but at the same time he lead the way to an open door where several people were standing. We were received in a negative sort of a way and there, on a table was a young fellow about 20 held down by several men. The minute he heard a foreigner was there, a big scuffle ensued, and such swearing and cursing at the foreigner one never heard! Great commotion followed, Li and two or three old women yelled at the patient in no gentle terms and the young men were earnest in their efforts to rebuke, while at the same time they clapped their hands over his mouth to prevent such another explosion. When things had quieted down a little, we asked after our guide but all were as ignorant as babies of him, though we felt morally sure he was behind the partition listening to us at that very moment. They told us the patient had been wild this way for an hour or two and they *were afraid* he had swallowed opium. The fellow was either drunk or possessed of the devil or both, but certainly exhibited no signs of opium poisoning. Li then proceeded to give a short lecture on the meanness of such treatment, bringing us so far in the mud for nothing and he wanted to know if they were not going to observe the custom and send us back on donkeys or barrows. Several at once professed eagerness to do so, but unfortunately it was so late, they could not hire them. By this time the people began to stir themselves to be polite to us and one man lighted a lantern and said he was sorry they had no conveyance but he would light us home. So we departed and to add to our discomfiture it was lightly drizzling. After entering the city we sent our guide back, our former guide we have never laid eyes on to this day, since he disappeared among the clump of houses. Poor Li was greatly disgusted and disposed to complain, though usually so good-natured, but I tried to cheer him up by telling him that what we did, we did for Jesus' sake and he would appreciate it if others did not; but with no overshoes and wading through such mud it is no wonder he was cast down, even though next day was New Year's day.

The other case, the call came for us a bright sunny May morning. The teacher put the preliminary questions, such as, "Was the messenger a member of the suicide's family?" "When did the suicide swallow the opium?" "What

for?" etc., etc., and getting a satisfactory reply we followed the man down the canal bank. The patient was about 40, had quarrelled, and swallowed opium to spite the other party. He was a Shantung man and his boat friends were much concerned about him. Of course he was lying flat on his back, dozing away, nobody having gumption enough to keep him awake. Indeed rarely if ever have I found relatives or friends exercising the patient to keep them awake. The patient was refractory so that his mouth had to be pried open and the mustard poured down him, after which he was walked about and given copious draughts of hot water. The sun was beating down on us very hot, and being near the floating bridge we had a large audience. Every order the doctor gave was sung out by 8 or 10 people in the crowd and if the friends of the man failed to understand, almost the whole crowd, it seemed, would yell out the directions to them. It seemed like ages before he vomited, but finally a second dose of mustard thoroughly emptied him. Cautioning them to keep him walking and not let him sleep, I took one of the party home with me to bring back a bottle of strong coffee. During the afternoon several of his friends called and were very grateful for saving the man's life, butting their heads at a great rate and thanking me profusely. This is one of only two cases that I can recall where any one returned to thank us.

MEDICAL NOTES FOR NON-MEDICAL READERS.

No. III. *Diarrhœa and other Bowel Complaints.*

By S. R. HODGE, M.R.C.S., L.R.C.P. (Lond.)

A medical friend has called my attention to an omission in my previous article. I had intended to strongly recommend an afternoon *siesta* in the hot weather. Yes, my dear friend, I am deliberately, and with the full possession of my senses, recommending missionaries to take an hour or an hour and a half's sleep under a punkah in the hottest part of the day.* No doubt some will think it a wicked waste of time, but I undertake to say that for the majority it will prove to be a saving of time. Get up early and work in the cool of the morning, but rest during the heat of the day.

The class of complaints to which I intend devoting this and the following paper are amongst the commonest in the tropics, and it is not easy to know the very best way to put the subject plainly before my readers. Perhaps a few *general* remarks, first, will clear the ground for more detailed ones later on. Remember then that diarrhœa itself is *not* a disease, it is a *symptom*, for which we have to seek the cause. It is true that sometimes, unable to find the cause, we have to treat the symptom, but, nevertheless, we should diligently

* Dr. Hodge writes from Hankow.—(Ed.)

seek to trace the cause of the trouble. Next, never make light of an attack of diarrhœa, more especially if it is repeated. Taken early it is, in the great majority of cases, perfectly amenable to treatment (unless the forerunner of some constitutional disease) whilst many a neglected diarrhœa has proved fatal. It is nature's warning of danger within; she is doing her best to get rid of something harmful and we should ever heed her voice. And now remember these three general remarks on treatment, viz., that the first and most important thing in diarrhœa is a good dose of *castor oil** (not chlorodyne if you please, my friend!), that the second thing is absolute rest in the horizontal position, and the last thing is *cold* slop diet in small quantities. A man who knows little more than what I have already written about diarrhœas will be able to successfully combat *most* attacks.

The commonest cause of acute diarrhœa is *some error in diet*. Some undigested material, remaining in the bowel, sets up irritation and nature endeavours to expel it. This she will generally accomplish if left to herself, but a good purge of castor oil (one ounce) or Gregory Powder (1 drachm) will very much help matters. This form of diarrhœa is frequently, though not always, accompanied by a furred tongue and some spasmodic pains in the abdomen. Common sense dictates that for a day or two the diet should be carefully restricted to soups, light milk puddings, arrowroot, corn-flour and such like things, whilst 10 grains of Gregory taken three times a day will soon put the stomach into good condition; and here, I may digress for a minute, to say a few words upon how to take that very nauseous stuff called castor oil. Children will frequently take it very well made into an emulsion with *hot* milk and drink off quickly, others will take it nicely in peppermint water. For adults the oil may be floated on strong beef tea which has been well seasoned with pepper and other condiments, or brandy may be employed. I prefer the last named vehicle and can recommend the following method: success depends upon attention to detail. Take two tumblers and half fill one with *weak* brandy and water. Into the second put half an ounce of pure brandy and then thoroughly wet the whole of the inside of the glass with it, which is accomplished by tilting the glass till the spirit runs to the edge and then gradually turning the glass round. The object of this is to coat the glass with alcohol to which the oil will not cling; a gentleman should, similarly, wet his moustache thoroughly with the brandy. On to this pure brandy now pour an *equal quantity* of water, and in the centre of this carefully pour your oil in one *unbroken* blob. Taking the weak brandy and water in your *left* hand, and the oil and brandy in your right, you *rapidly* drink the latter,

* N. B.—Gentlemen, said a celebrated physician in London lecturing to his students, the first thing in diarrhœa is castor oil, and the second thing in diarrhœa is castor oil, and the *third* thing, gentlemen, is castor oil!

and at once commence *very slowly* to drink the former : then lie quietly down. Most people will not taste the oil and I have never yet failed to get a patient (including myself) to keep it down when administered after this fashion. Those who have conscientious scruples about taking brandy can observe the same method with peppermint water.

Worms are a frequent cause of acute diarrhœa and even produce dysenteric symptoms, the ova being taken in with imperfectly washed vegetables or unboiled and imperfectly filtered water. (Take note!) These worms are long round worms, tapering at both ends, and are white or pinkish when passed. In this condition the tongue is generally *clean*, but not always : still diarrhœa, with a clean tongue, justifies a suspicion of worms. There are no other special symptoms diagnostic of worms (and even this one is by no means distinctively symptomatic) and we can only say that, in the tropics, worms should always be kept in mind *in all forms* of intestinal troubles. In adults irregular attacks of colic, dyspepsia, vomiting and diarrhœa, often coming on suddenly, and frequently accompanied by much straining ; in children fretfulness, picking at the nose, disturbed sleep, with twitchings, irregular motions not unfrequently containing a little blood and even convulsions and other serious symptoms ; all these *may* indicate worms and will justify a trial of *santonine*. The dose for an adult is 5 grains given on an empty stomach the last thing in the day, and followed by a purge in the morning ; this may be repeated once or twice. The quantity of *santonine* which some people think a child can take is, to say the least, extraordinary. I once *heard* (I will not vouch for the truth of the story) that one zealous brother gave his child nearly a teaspoonful. I believe the child recovered. Still such an experience is certainly not to be considered a precedent even though this gigantic dose expelled an army of worms (my informant was inaccurate on this point!) Children under 6 will do quite well on *one grain*, and under 12 on *two grain* doses. The powder, which is quite tasteless, may be put on the smallest child's tongue with a little sugar. This should be repeated two or three nights and then a good purge given ; if a child, or adult can be made to take the *santonine* in olive oil, this is an advantage, as the oil cannot be absorbed by the stomach, thus ensuring that the medicine is not absorbed before it reaches the intestine. One final word to allay the fears of anxious mothers who may be greatly troubled at the number of worms their child may pass. Cobbold, in his standard treatise on entozoon, gives authenticated cases of 300, 400, 500 and more being passed by children, and every medical missionary is familiar with the quantity a Chinese child will often expel. Such cases are not common in foreign children, but a mother need not be frightened if any of her children, after *santonine*, should pass half a dozen or more.

(To be continued).

NOTES ON CASES.

Auto-Lithotomy.

BY A. W. DOUTHWAITE, M.D., F.R.C.S.

About two years ago a man about 30 years old came to my hospital, with the usual symptoms of a large urinary calculus. The poor fellow was in great distress, and suffered intensely when he tried to walk, so I advised immediate operation. As he was unwilling to be cut, I made an attempt to perform lithotrity, but found the stone so large that when grasped by the lithotrite the instrument would not lock, so it was evident that it could only be removed by lithotomy. The man had promised his friends that he would not submit to any cutting operation, so had to return home, a distance of sixty miles, on foot, to obtain permission, ere he dare allow me to operate. I never expected to see him again, for he was so emaciated by suffering that I thought he would probably die on the road.

Last August, however, he turned up again, looking much better and stronger, but complaining of incontinence of urine. I told him he could not be cured unless the stone was removed, when to my surprise he assured me that the stone had removed itself, and that he had it at home among his curios!

This was too much for my credulity, so I put him under chloroform and made a thorough examination of his bladder. Sure enough the stone had disappeared, and in the space between the left ischium and the anus was a long irregular cicatrix, exactly in the place where the incision is made in lateral lithotomy.

Here, according to the patient's account, an abscess formed after he reached home, and when it broke, the stone, which he said was as large as a duck's egg, was expelled from the bladder.

This is the first case of the kind I have met with, or heard of, but there may be others on record of which I know nothing.

Lupus.

In 1889 a Chinese woman named Liu was admitted to my hospital to be treated for lupus, which was spreading rapidly over the upper part of her chest.

I gave chloroform, scraped the ulcer, and afterwards applied Ung. Iodi., giving Pot. Iodi. internally.

The disease was arrested, and the patient returned home, but came again the following year in a worse condition than ever.

The same treatment was adopted and again the progress of the disease was checked, but the ulcers never completely cicatrized.

In 1891 I procured a supply of Koch's tuberculin, about which at that time the civilized world had gone crazy. This I tried on Mrs. Liu, who lived near my house, and was willing to undergo any treatment likely to give relief.

For three months I continued the injection of tuberculin, in very minute doses, and at the end of that time every portion of the ulcer, which extended from the lower third of the sternum upwards over both shoulders, and round the neck, had healed, and firmly cicatrized. The woman then went to live in some distant part of the town, and I saw no more of her till last October, when she again applied for admission into the hospital.

Her chest was greatly disfigured by the brawny cicatrix, which drew her breasts close together, but there had been no return of the disease in the parts treated with Koch's lymph.

On each cheek were large lupus ulcers, and the right lower eyelid was also affected.

As I had no fresh tuberculin I decided to try a mixture of creolin and glycerin, from which I had obtained good results in the treatment of leprous ulcers.

Lint, saturated with creol-glycerin was laid over the diseased parts every day, and covered with oiled paper. No other treatment was tried, and in a few weeks the ulcers had almost healed. When she left the hospital early in November only a few small scabs could be seen on her cheeks, the rest of the ulcerated parts being covered with a smooth cicatrix.

As this treatment is easy, free from danger, and withal cheap, it is worthy of extensive trial in all skin diseases of a tubercular nature.

DANGER FOLLOWING CHLOROFORM ADMINISTRATION.

BY DAVID C. GRAY, M.B., C.M.

Patient, a priest, Ssu Chi by name, aged 21, was admitted to the Hospital in September last, suffering from a gunshot wound of the left hand and after a few days' residence consented to operation.

On the morning of the 14th, about eleven o'clock, chloroform was administered, patient going under rapidly and giving no trouble or cause for alarm throughout the operation.

Dr. Westwater performed partial amputation of the left hand and the operation being completed, within half an hour, with no abnormal loss of blood. The chloroform, which was administered on a folded towel, was removed some minutes before the dressing was completed.

During the next ten minutes or so the patient's respirations and pulse were good, conjunctival reflexes perfectly re-established, and he was able to

open his eyes and look about him, although he could not be got to give any reply to interrogations.

His condition now became rather suddenly unsatisfactory. The right arm which was flexed became suddenly rigid, the jaws clenched, the head was thrown backwards, the muscles of the neck becoming rigid and the chest fixed, but nothing resembling a general epileptic seizure occurred.

This condition of spasm lasted for about half a minute and the breathing which had become suddenly shallow, ceased, the face pale and the pulse weak and rapid.

Artificial respiration was commenced, the patient inverted and 30 m. of brandy were injected subcutaneously, this was followed by some improvement in pulse but none in respiration.

The battery was applied, one pole to the chest wall and the other to the region of the phrenic nerve, with at first no seeming advantage.

Hot sponges were applied over the cardiac region, brandy again injected and the battery re-applied, but on any cessation of artificial respiration patient showed no effort at natural respiratory movements.

After the lapse of half an hour natural respiration became gradually established, at first abdominal and then thoracic, pulse speedily improved and in about three quarters of an hour from the time the first alarming symptoms were observed patient could be considered out of danger; at no time were there any signs of lividity.

Patient although not robust appeared in good health and did not take opium. Urine contained no albumen. Heart sounds normal. The points which appear worthy of note are:—

1. The lapse of time between the removal of the chloroform and the first signs of danger.
2. The absolute cessation of all respiratory movements.

IS THERE REAL MODERN DEMONIAL POSSESSION?

BY THE REV. SIDNEY L. GULICK, *Kumamoto, Japan.*

A consensus of non-Christian countries on the above question would be of great value in itself, beside throwing much light on the much disputed question as to the reality of the possession described in the New Testament. It would also give much information as to the actual psychic condition, as to beliefs, fears, etc., of the mass of the inhabitants of the world. This information can be best secured only by and through the missionaries; for to be thoroughly reliable it must be collected by well educated men who are both

acquainted with scientific forms and methods of thought and also with the people; he must not only be well acquainted with them, but he must also be thoroughly trusted by them. Except the missionaries of the Gospel of Christ, there are few who fulfill all these conditions. For the above reasons, may I ask help in securing such a consensus? Before asking definite questions, the simplest course may be to give briefly the facts as I have learnt them in Japan, which will illustrate what is wanted.

A part of the people of Japan (the ignorant superstitious classes) believe in the actual possession of men and women by foxes, badgers, dogs, snakes, live-men, dead-men, and fierce-gods; each kind is determined by distinctive phenomena, which phenomena are largely convulsive. I have myself seen and talked with persons thus afflicted. They deny that it is a nervous disease; but assert that possession is the cause of the disease; the diseases produced by possession are many, whose cure is procured only by deliverance from the possessing spirit. Prayer and exorcism are the chief means used for deliverance. It is commonly said that these special convulsive phenomena are rapidly disappearing, due it is often added to the progress of scientific civilization and the decreasing fear of evil spirits. Some cases of cure are told in which the strong will and energetic command of a friend prove sufficient. The occult phenomena of second sight, trance, foretelling events, etc., are also attributed by the common people to possession of some kind. Some persons are said to "use the foxes," i.e., to bewitch others, subjecting the individuals to the control of the foxes. What I have seen leads me to think that ordinary mesmerism or hypnotism may be a sufficient explanation for many of the phenomena, though I do not feel clear that it will account for all. Further investigation is needed before definite conclusion can be reached. I have not heard of any cure attempted in the name of Jesus Christ, although I believe the phenomena to be very much like those described in the New Testament and that probably they demand the same explanation. The questions then I wish to submit to the individual members of the Medical Missionary Association, and to beg for answers are:—

1. Do the common people in your field believe in actual possession by evil or animal spirit?
2. Have you yourself seen any of the phenomena of the so-called possession?
3. If so, please describe minutely?
4. In what ways are cures actually secured? by medicines or by exorcising formulæ, prayers, faith, strong will?
5. Is the cure ever attempted in the name of Christ? with what success?
6. What special diseases are usually accompanied or caused by possession?
7. Do you believe these phenomena similar to the New Testament demon-possession?

8. Do you yourself believe in actual possession by spirits, or others?
and in deliverance, by prayer to and command in Christ's name?
9. Or do you believe a sufficient explanation to be found in the beliefs,
superstitions and fears of the people?
10. May the phenomena be partly or largely or wholly explained by
hypnotism?
11. Do you know of any one who has made a specialty of the subject in
your field? if so, who? (give name and address.)
12. Do you know of any magazine articles or books that throw special
light on this subject? (name author, title, publisher, etc.)

I shall deem it a great kindness if the above questions are answered as fully and explicitly as possible. I am aware that I am asking no slight thing of those who are already extremely busy; I would not think of it but for the great value of the light it will throw on the New Testament narratives, as well as on important psychic problems.



CLINICAL OBSERVATIONS ON SPRUE, AND INTRACTABLE WHITE DIARRHŒA.

BY DUNCAN J. REID, M.B., C.M., *Shanghai.*

At the last Missionary Conference in Shanghai, it was suggested that it would be a good thing for medical missionaries in different parts of China, to record from time to time, in the *Medical Missionary Journal*, their observations on the diseases prevalent in the different parts of China. So far as I am aware this excellent suggestion has not been acted on, at least in any systematic way.

Now, there is a disease that one meets with here in Shanghai, and also in the out-ports of China, which would, I am sure, form a very good subject for clinical observation by the members of medical missions in China. I refer to the form of chronic diarrhœa, which usually goes by the name of "*Sprue*."

This disease (*sprue*) generally shows itself in foreigners who have been resident in China for some years. It may have begun as an attack of ordinary diarrhœa; but more frequently, I believe, as white diarrhœa, with suppression of bile. When fully established, it gives rise to frequent pale or grey stools, which are usually frothy, often surprisingly copious, and are accompanied by flatulence. The patient often complains of colicky pains, which are usually succeeded by a motion, and are often relieved by it,

After the disease has lasted for a little, and often from a very early period, the patient begins to suffer from irritation of the tongue and the mucous membrane of the mouth, and ultimately the throat; and this irritation is succeeded by inflamed patches on these parts, which may ultimately extend, so that the tongue looks simply a mass of raw flesh. He gradually and steadily loses flesh; the voice becomes husky; and swelling of the lower limbs comes on towards the end.

Now, I have no intention of giving, even were I competent to do so, anything like an exhaustive dissertation on the disease in question. I shall however refer to the different points on which information would be useful, and make such remarks under the different heads as may bear on my own experience of the disease.

Ætiology.

It would be well to obtain as much information on this head as possible. Very often the patient is unfortunately unable to suggest any cause. All that he may tell one is that he began to have diarrhœa at a certain date, and that it went on in spite of treatment. Among the cases I have seen, one or other of the following causes appeared to have been at work:—

1st. *Irritative Dyspepsia.* Several of the patients suffered from this form of dyspepsia, for some time previous to the onset of the diarrhœa; and in these cases, this form of indigestion and possible cause of sprue, appeared to have been set up by one or other of the following conditions:

- (a.) Excess in eating.
- (b.) Excessive use of stimulants.
- (c.) Insufficient exercise.
- (d.) Loss of grinding teeth.
- (e.) Constipation.

2nd. *Derangements of the liver.* I think no one, after seeing the pale stools of a sprue case, can avoid coming to the conclusion, that an *imperfect action of the liver* is one of the principal, if not the most important cause. Here, in Shanghai, especially during spring and autumn, attacks of suppression of bile with white and usually loose stools are frequent, and I feel sure that these cases, if neglected, may often end in sprue. The “hill diarrhœa” of India, which, in many respects, resembles sprue, if it is not exactly the same disease, begins in much the same way as the white diarrhœa one sees here, namely, by a chill.

3rd. *Malaria.* From the fact that one generally sees sprue in persons who have been long resident in the East, one is inclined to think that malaria must, to some extent, enter into its causation.

Anatomical Characters and Pathology.

It is so universally admitted by medical men, that it is, in the majority of cases, impossible to cure an advanced case of sprue, in China, that such

patients are usually ordered home before the disease has terminated fatally, and it thus very rarely happens that one has an opportunity of determining the condition of the organs. By most authorities, it is generally stated, that all that is to be seen is a thinning of the coats of the intestine, with enlargement of the solitary follicles of the same, and in some cases evidence of previously existing peri-hepatitis.

If one is to judge from the the state of the tongue and mouth, the stomach and the upper part of the small bowel ought to be in a violent state of catarrh; probably coated with mucus; and quite unfitted for either digesting or absorbing. Many of the patients I have seen, suffered from piles, indicating that the portal circulation was impeded. In most of the cases, the liver dulness was normal.

If any one will take the trouble to examine the stools of sprue, under the microscope, he will find that they consist of almost pure cultivations of rod-shaped bacilli. In the specimens I have examined, two forms seemed to predominate. The one a bacillus, with a beaded structure, as if five micrococci had been fused into one long bacillus (length 1-4,000th of an inch, and breadth 1-32,000th of an inch); but the great bulk of the examined material appeared to be made up of a smaller form, which was a bacterium-shaped organism resembling *bacterium lineola* (length 1-16,000th of an inch, and breadth 1-39,000th of an inch.) The whole mass of the stool seemed to be chiefly composed of these two organisms, which would account for the enormously abundant yeast-like stools seen in this disease. Whether these organisms ought to be looked on as the cause, or the result of the disease, I am unable to say.

Treatment.

As with the other parts of my paper, I have no intention of trying to make this division at all exhaustive. I merely wish to indicate briefly what appears to me to be the proper mode of treating the disease, and to refer shortly to the drugs I have used for this purpose; and then, in conclusion, to give short notes of a few selected cases which seem to bear on the different points I have touched on.

If we are correct in assuming that the action of the liver is at fault; that the quantity of bile is deficient; that the stomach and bowel are in a catarrhal state and coated with mucus; and that digestion is almost arrested, absorption difficult, and also that the contents of the bowel are liable to pass into an active state of fermentation; then it is evident that all treatment must be directed to:—

1. Stimulating the liver.
2. Relieving the catarrhal state and getting rid of the mucus.

3. Giving food that shall be pre-digested, or that shall be as easily digested as possible, and that shall be as little likely as possible to ferment.

4. Trying to arrest any tendency to fermentation.

And after all these conditions have been overcome, we may begin to try to arrest the diarrhœa, if it does not then stop of itself.

To these ends, I shall consider the treatment under the two heads of food and medicine.

Food.

The food, as I have already said, should be such as requires little or no digestion; be easily absorbed; and not be liable to undergo fermentation.

Solid food is, therefore, not, at any rate at first, admissible. Nor is milk, in my experience, suitable. It seems to me to form only hard curds, and to pass on undigested, and this even when peptonised, at any rate in the beginning of the treatment. The food should be given in small quantities and frequently, so as not to load the stomach. It is therefore not sufficient to give the patient general directions about his food, or to simply tell him that he is only to take "light things," but a carefully arranged dietary must be made out, for every two hours from the time he gets up until he goes to bed. This may consist of:—

Soups.

Whey, either alone or thickened with cream.

Beef juice, or pounded raw beef.

Jellies.

Tea and stale bread in moderation.

Some infants' foods answer well. (Nestle's or Benger's).

Vegetables. These are important but must be used cautiously, and only things like vegetable marrow, or cauliflower tops should be given.

Fruit. As a rule no fruit is well borne. Stewed pears or stewed apples are generally liked and may suit.

In the extreme cases where no form of vegetable or fruit is found to agree, then the juice of lemons or oranges may be given in the form of fresh lemonade or orangeade.

As the case goes on and improves, peptonised milk may be tried and sometimes suits well.

Wines and stimulants are, as a rule, to be forbidden.

Medicine.

The two medicines that I have seen do most good in this disease are, *salicylate of soda*, either alone or combined with tincture of opium; and *powder of ipecacuan*, either alone or combined with bicarbonate of soda.

The indications were:—

1. To stimulate the liver.

2. To relieve the catarrh and remove the mucus.

3. To arrest the fermentation.

And these indications are as well carried out by these two drugs (*ipecacuan and salicylate of soda*) as by any that I know. Small doses of perchloride of mercury were suggested some years ago, and have been successfully employed in cases of this disease. I have tried it in one or two cases, but it was not well borne.

Seeing a case of sprue, or supposed sprue, for the first time, I usually begin by giving the salicylate of soda in 15 gr. doses, three times a day, for a day or two. This usually improves the symptoms, and the patient may feel better, especially as regards the distressing symptom of flatulence. Salicylate of soda is a very good hepatic stimulant, and also acts as an antiseptic, and the colour of the stools may therefore be improved. The diarrhœa however, probably goes on as badly as ever.

After a day or two, the ipecacuan may be begun. This drug is also a powerful hepatic stimulant, and has the property of producing copious, loose, rather watery, bilious stools. I usually give it along with bicarbonate of soda.

R. Pulv. ipecac. grs. 15

Sodæ bicarb. „ 10. misce. Signa. One night and morning.

If the patient were very weak, I should only give the ipecacuan once a day, say at bed-time; or if in a still more exhausted state, I should even prefer to try small tentative doses to begin with.

The effect of the ipecacuan is generally to increase the frequency of the motions, which are however altered in appearance, somewhat after the manner of the change that occurs in the stools in cases of dysentery, after treatment with that drug. Notwithstanding the increased frequency of the motions, along with which the patient may lose weight, he usually declares that he feels better and stronger.

After a day or two, *i.e.* when three or four of the ipecacuan powders have been taken, they may be stopped and the salicylate of soda resumed along with a few drops of morphia or laudanum, two or three times a day; or this drug may be given three times a day, and one of the ipecacuan powders given at night, for a few days longer.

After the case has assumed the character of an ordinary case of chronic diarrhœa, astringents may do good, and of these I should be inclined to try nitrate of silver, or bismuth.

Change of air undoubtedly helps convalescence.

I need not, I think, point out how very important it is in cases of the kind, to watch the effect of treatment from day to day, and that this cannot be done without a careful daily inspection of the stools.

I should not like any of my readers to run away with the idea that I have been describing a sure and infallible way of treating this persistent disease. As I have already remarked, it is admitted by all medical men to be a difficult disease to cure, and it would be a good thing to have more light thrown on its pathology and its treatment. I therefore only give these few imperfect observations and suggestions, as a beginning to further notes on this disease, which I hope to see contributed to the Journal by writers in different parts of China.

Before concluding, I should like to point out, that although I have all along only referred to the disease as "*sprue*," and spoken of it as if it were a disease as easily recognisable as scarlet fever or measles, I have no doubt that under the name "*sprue*" are often included diseases which are quite different from one another in their pathology, although to the most careful observer they may appear to be exactly the same disease. On these grounds there may be some who will say, given a case of intractable white diarrhœa, having all the usually recognised characters of sprue, that the final diagnosis is impossible, until one has seen the effect of treatment, i.e., that if the diarrhœa were curable it was certainly not sprue.

Whether this is a correct position to take up or not, there can be no denying the fact, that here in China we have a large number of cases of intractable diarrhœa, with pale stools, and accompanying inflammation of the mouth, and rapid emaciation, and call the disease or class of diseases what one likes, I think it would be well to have all the information on them we can get.

I have added a few cases, which whilst not all cases of sprue, illustrate in some particular the different points I have touched on.

Case 1. This is a good specimen of diarrhœa beginning with dyspepsia due to bad teeth, and which was fast passing into a state, at least resembling sprue, if it was not actually that disease.

Case 2. This was a fairly typical case of sprue of a mild type.

Case 3. This was a case of imperfect action of the liver, with pale stools and is just the class of case that, if neglected, would before long have passed into the intractable form of diarrhœa, and possibly sprue.

Case 4. This was one of dysentery, but the lady had been seen by several competent doctors, and had been declared by them to be suffering from sprue. The symptoms of chronic dysentery and sprue are often very similar.

Case 5. The improvement in this case of intractable diarrhœa, or sprue, under the treatment with ipecacuan and salicylate of soda, was certainly wonderful; and the good effect of change of air is worth noting.

Case 1. Mrs. A..... B....., about 40.

This lady was seen first in the month of August 1889. She had then been suffering from diarrhœa for several weeks, with 3 or 4 motions in the course of the 24 hours. These were clay coloured, and, although loose, were not watery. They were also, at times, frothy, and she suffered frequently from flatulence. She had long had bad teeth, which were much decayed and were covered with tartar. When seen, the tongue was covered with bright red inflamed patches, as were also the gums and the inside of the mouth generally. The tongue was extremely tender and she was thus unable to take anything but the plainest of food.

She was put on a mixture of

R. Tinct. opii dr. 1.
 Sodæ salicylat „ 3.
 Sp. ammon. aromat., 4.
 Aquam ad oz. 8. misce. Sig. oz. $\frac{1}{2}$ thrice daily.

And at the same time carefully dieted.

Under this treatment she did fairly well, and the tongue and mouth were much improved. But still the frequent motions continued, loose and pale in colour, and she was still much troubled with flatulence and colicky pains. She said, also, that the mixture made her sick, so it had to be stopped. This was in the middle of September.

I then gave small doses of pulv. rhei co., 3 times a day, and digested milk, with soups.

With this she lost the colicky pains, but the motions remained as frequent as ever, pale in colour, and very deficient in bile.

She was next given a mixture of

R. Ammon. chloridi dr. 3.
 Sp. chlorof. „ 2.
 Aquam ad oz. 6. misce. oz. $\frac{1}{2}$ thrice daily,
 with R. Pulv. doveri grs. 5.
 Pulv. cretæ aromat. grs. 10. misce. One at night.

Under this treatment it appeared as if she were going to improve very much. The motions were only once a day, and solid, and were at times of good colour. The mouth was still rather sore.

However, in the beginning of November, she seemed to fall back again, began to have frequent motions once more, and to suffer from flatulence.

At this time she was put on

R. Pulv. ipecac grs. 2.
 Sodæ bicarb. „ 5. misce. One night and morning.

And for food

Milk, soup, chicken, and stewed fruit, with fresh lemonade to drink. Food to be given every 2 hours.

At the same time the sodæ salicylate mixture was ordered every 6 hours.

This treatment commenced on the 12th of Nov. 1889, and under it she improved very much, and a week later it is noted, that "she had two motions on the previous day, both of which were natural in colour and consistence. The tongue and mouth are almost normal in appearance, but the former still feels somewhat spongy. She looks and feels much better and stronger, and has an excellent appetite."

After this, the patient remained practically well, although on one or two occasions she had a slight return of the diarrhœa, accompanied with the passage, at times, of lumps of undigested curd; and a slight return of the irritation of the tongue, but nothing like what she used to have. She was very anaemic.

I therefore ordered Rochelle salts dr. 1 each morning.

And during the day

Tinct. ferri perchlor. gtt. 2 gradually increased until she was taking 10 gtt. thrice daily.

She was taking the same food as before, but had all milk *peptonised*.

She was also given fruit in the form of stewed pears.

After this, she had for some time, trouble occasionally with her mouth, but, so far as I am aware, has had no return of the diarrhœa.

Case 2. M..... S....., missionary, aged 40.

Seen first on the 28th December 1891. Six months before, he had had, in Manila, what was called by the doctors there "Catarrh of the bowels."

He had had all sorts of treatment, and of late had not been quite as ill as he used to be, but still the diarrhœa went on; two or three motions a day; he had got very thin and weak, and was still losing flesh. The motions were pale, or grey in colour, and had, usually, a sort of scum on the surface. He suffered very much from flatulence. There was no blood in the motions, but at first there used to be a little mucus at times. For some time past he had suffered from an irritation of the tongue, mouth, and throat, so that anything hot or spicy pained him.

He was put on ipecac grs. 15.

Sodæ bicarb grs. 10. misce. One powder to be taken at night.

Of these powders he only took three, with the result that the diarrhœa completely disappeared, and the motions were normal in appearance. He then left for Japan, and when there he had a return of the diarrhœa, as the result, he said, of having eaten some beans. He then of his own accord took three more of the ipecac powders, and was all right again.

He returned from Japan on the 18th February 1892, and the note then made, was:—"For the last twelve days he has been very well indeed, and

feels better than he has done for the last six months. He has gained flesh, and has an enormous appetite. The tongue is still rather irritable."

I have made several enquiries about this patient, since he returned to Manila, and am told that he has been quite well.

Case 3. Rev. Mr. M....., age about 30.

Seen 28th January 1891. He had influenza about two months before, and since then had suffered from diarrhœa, with pale stools, and from flatulence. When seen by me he was much emaciated, and the stools I saw were clay coloured and contained a little mucus. The tongue was normal.

After a few days preliminary treatment he was put, on the 3rd of February, on

Pulv. ipecac grs. 4, at night.

And as there was great improvement in the motions, he was, at the end of a week, given cod-liver oil and maltine; and the note on the 18th of February is, that he finds himself quite a different man, and is gaining weight and flesh. The bowels are normal.

Case 4. Mrs. M....., aged about 28. Seen on the 22nd of Jan. 1891.

She had been three years in China. Before coming out here, and for 2 years after her arrival, had been in good health. About 18 months ago, she had an attack of dysentery. This dysentery began as an attack of ordinary diarrhœa, then loose stools accompanied by mucus, and lastly stools with mucus and blood, and straining. This lasted for about 6 weeks, and then she seemed quite well. She remained quite well for about 6 weeks or 2 months, when she began to suffer from diarrhœa, with copious, pale, frothy stools. She suffered also very much from flatulence. Several doctors told her that she was suffering from sprue, and that she must go home. She had lost weight, inasmuch as she was reduced from 110 lbs. to 89 lbs., and that with thick clothes on.

For the last three days the symptoms had assumed those of acute dysentery, with frequent motions, straining, blood and mucus. Motions 6 to 8 in the 24 hours. She had a good deal of pain in the belly. Tongue was furred with enlarged papillae.

The following was recommended for food, at intervals of two hours:—

Whey and liq. carnis.

Soup.

Custard pudding.

To apply a fomentation to the belly.

R. Pulv. ipecac grs. vii.

Sodae bicarb. " x.

Bismuthi carb. " v. To take one morning and night.

23rd. She retained the powder, and had a good night, sleeping 5 hours.

B. 0 during the night, but 3 times after 5 a.m. with ipecac stools, some mucus,

but no blood. The tongue had quite lost its irritable appearance. Temp. 99.5.

24th. B. 3 during the night. They were watery ipecac motions. As she seemed to have some difficulty in arranging what to take in the way of food, I recommended as follows:—

9 a.m.	Whey and liq. carnis.
11 "	" " custard pudding.
1 p.m.	Soup " liq. carnis.
3 "	Whey " do.
5 "	Tea, toast and cream.
7 "	Soup and liq. carnis.
9 "	Whey.

Can drink fresh lemonade *ad lib.*

26th. Had a good night. B. 4 yesterday, no straining, and no blood nor mucus. B. 0 during the night.

29th. B. 1 yesterday, faecal and partly formed. B. 1 this morning formed, and almost normal in appearance. Tongue clean

31st. B. 3 yesterday, ipecac stools containing neither blood nor mucus.

Omit the ipecac powders.

R.	Pulv. doveri	grs. v.	
	Sodae bicarb.	" v.	
	Bism. carb.	" x.	misce. Signa. One twice daily.

Feb. 2nd. B. 0 for 2 days, and she seems stronger.

18th. Has gone on improving, and has been able to be out several times and is gaining weight.

This patient went home shortly after, and was, I believe, pretty well there. I have not heard of her for some time.

Case 5. Mr. R....., aged about 45. Seen first on 18th July 1892. The history given me was, "For the last year he had been troubled with colicky pains in the lower part of the belly. They came on at intervals of a few days, accompanied by diarrhoea with 8 or 10 pale greyish stools in the course of the day. The motion generally came with a rush, and after that he feels better, but very weak for some time after."

When seen, his belly was distended with wind, tympanitic all over, appetite very poor, and for a long time he had been living on nothing but slops. He said he was so weak, that when he had lain down he felt as if he could never rise again. Heart sounds normal. Liver dulness normal. In addition to the number of times he goes to stool, the stools were so enormous, that it seemed astonishing where it all came from. He said he was sure he passed in the stools far more than he took as food. His usual weight is 150 lbs., but it was then only 105 lbs. The tongue was covered with a thin creamy fur, moist and very irritable.

He was recommended to take Sodae salicylate grs. 15, thrice daily, before meals, and given minute directions about what he was to eat. He was however allowed a fairly free dietary, but was recommended to take little at a time and often.

19th. B. 5 this morning. He had no colicky pain. Tongue clean. The motion that I saw was grey in colour and frothy.

23rd. Says he has been feeling much better since he began with the powder. So far as the diarrhoea is concerned, however, it is as bad as ever. His tongue is better, it is a little furred to-day, but is less irritable than it was. Says he has gained 3 lbs. during the last week. He had a return of the old pain last night, and had to take some laudanum to relieve it. During the night he passed a large quantity of clear urine of light specific gravity.

Hab. pulv. ipecac grs. 15.

Sodae bicarb. grs. 10. misce. Tales 6. One night and morning.

24th. He kept the powder he took last night, and also the one of this morning. B. 15 or 20 times during the night. Tongue is moist and clean at the tip and edges, but is a little furred in the centre.

25th. Had the powders as directed. B. 16 yesterday during the day, but only twice during the night. He says he had a better night than he has had for some time. No pain in the belly. B. 4 this morning, grey and frothy, and containing a good deal of undigested peas.

To continue the ipecac powders, and to take the following mixture twice during the day:—

R. Liq. morph. acet.	gtt. vii.
Sod. Salicylat	gr. x.
Aquam ad	oz. ss. misce.

7th August. B. 0 since yesterday. This is the first time that such a thing has happened to him, for many months. He also passed a large quantity of pale coloured urine. He has felt better since he began the treatment, than he has done for many months.

8th. B. 2 this morning, but for 36 hours before that, not at all. He has lost weight during the time he has been taking the ipecac, but at the same time he feels much better and stronger, and can now do things that he could not do before. His face seems to me less pinched than it was.

To stop the ipecac, and to go on with the mixture.

9th. B. 0 since my visit, until this morning, when he had one motion. He had not been for 36 hours before that.

21st. Since I saw him last he has had no diarrhoea. He has a very good appetite, and is taking his food well. In fact it is difficult to satisfy him. The one or two motions he has had were formed. This morning he has had a

little diarrhœa, and has a nasty cough and he thinks he must have got a cold. The motions are bilious and watery.

Hab. pulv. ipecac grs. 15 to-night.

21st. Kept the powder last night. B. 0 during the night, but twice this morning. The motions were not copious, and he had no pain. He feels much better today.

Hab. pulv. ipecac grs. $7\frac{1}{2}$ to-night.

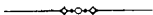
28th. For the last week he has had only one motion a day. All solid or semi-solid. He has felt very well, but is still very thin.

Recommended him to take some maltine.

4th Sept. The state of the bowels continues to be satisfactory. A few days ago he had a little pain in the belly, and colicky pains, but he took a dose of castor oil, and this seemed to put him all right. He can now work and walk about, without feeling fatigued as he used to do. He has, however, to be careful, as his bowels are easily upset, after which he has one or two loose motions.

Recommended him to take a trip to Japan.

15th Nov. 1892. He returned from Japan about the beginning of this month. He says he had a little diarrhœa occasionally, when he was in Japan, but it is now quite gone. He gained 32 lbs. during the time he was away (weighing 98 lbs. when he left, and 130 lbs. on his return).



The China Medical Missionary Journal.

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No. 1.

In the last number of our Association Journal, we stated that we would as time and opportunity offered, recur to the research and medical progress of the past year, as faithfully recorded in the pages of the volumes of the ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES, adapting it in as far as we are able to seasonable necessities. As it is not difficult to forecast in the near future perplexities regarding the treatment of diarrhoeal diseases, it will not be out of place to recapitulate something of the etiology of cases of the summer diarrhoea of children, with perchance an illustration or two and suggested lines of treatment.

In the first instance comment is made with regard to the strong evidence of the bacterial origin of most cases of summer diarrhoea and the tendency to attribute too much to the direct action of micro-organisms, and to ignore many conditions, which are also concerned in the production of the disease. "Germs flourish only under favourable conditions, the most favourable of which is an undigested and decomposing fluid mass in the stomach and intestines." Hence undigestible food, overfeeding, by leaving an undigested residue, or anything which diminishes the digestive power, is a predisposing cause of the disease. The discovery of the germ renders our knowledge exact and positive where it was before uncertain and theoretical, and furthermore we have learned the importance of giving greater attention to the general dietetic and hygienic management of our cases.

We are told that Hue, of Rouen, reports some interesting observations, made during a severe epidemic of cholera infantum, in a ward containing no child over 10 years old. No breast-fed child was ill, the victims all being among those fed on cows' milk. This milk was obtained from two cows, well cared for, and every care was taken of the various vessels in which the milk was placed. The disease began in from one to four days after birth, and was very fatal, death occurring in from twenty-four to forty-eight hours. The milk was first boiled, without effect upon the epidemic. It was then sterilized, the ward was cleared and thoroughly cleaned, and the walls washed down, when the epidemic at once ceased. Lactic acid was freely used, without any apparent result. Saint-Philippe calls attention (*Journal de Médecine de*

Bordeaux) to the close relationship existing between the intestinal canal and the skin, and believes that prolonged baths at too low temperature may be the cause of digestive disturbances which may lead to diarrhœa.

Passing on in review, treatment is now entered upon, and it is remarked with some degree of truth that "the writers seem to be far less positive regarding their ability to feed weak and delicate children than they were a few years ago." And it is admitted that theoretically the difficulties have been largely overcome, inasmuch a food can be prepared, chemically, to be almost identical with breast milk, yet it is most uncertain in its action, sometimes acting admirably and sometimes being entirely rejected. Blackader (*Montreal Medical Journal*) attributes part of the failures to changes which take place in milk during the process of sterilizing, he recommends partial sterilizing thus rendering it more readily digestible. He suggests that if the Arnold sterilizer is used the process should be continued but twelve or fifteen minutes, cold water being placed in the pan at first. Soxhlet, in the course of some interesting remarks upon modifying sterilizers so as to make them more simple, points out one fact which must not be forgotten, viz., that though sterilizing accomplishes but one thing—the destruction of bacteria—it may render the milk less digestible. When fresh milk can be obtained it should not be resorted to. When employed the same rules must be observed both with regard to dilution and preparation as for unsterilized milk. He believes that it should always be boiled when digestion is imperfect. As in former years, the use of milk in the more active stages of diarrhœa is disapproved by most writers, and in the first stages, especially if the onset is sudden and severe, no food whatever is advised for many hours.

Water may be freely given, unless there is excessive vomiting, or weak brandy, and water, chicken-broth, or barley water. When milk is begun it should be largely diluted, 1 part being used to 8 of water, the strength being gradually increased. Cream well diluted, is sometimes tolerated better by the stomach than milk. Other foods more commonly referred to are meat broths, meat juice, and white of egg.

With regard to medicinal treatment, though we note that the pharmacopœia is more or less generally included, little has been said of Carbolic Acid Resorcin and Naphthalin. Bichloride of Mercury is still used but is on the wane. Faith in drugs is unquestionably decreasing while more reliance is placed in hygienic and dietetic measures, and over-drugging is probably less prevalent than in former years.

The learned editor (Dr. Sajous) is of opinion that the general plans of treatment in ordinary cases of dyspeptic diarrhœa and acute enterocolitis, as described by various writers, while varying widely in details, are surprisingly similar. At the outset, even if the case is first seen after several

days of illness, an evacuant is given. For this purpose rhubarb, a saline laxative, castor oil, or calomel is commonly employed. Calomel is probably more generally selected than either of the other drugs. It is administered either at a single dose, or in divided doses frequently repeated. By the latter method $\frac{1}{10}$ or $\frac{1}{8}$ grain is given every half hour or every hour until 1 grain has been used.

Thoroughly triturated with sugar of milk and administered dry on the tongue, either as powder or compressed tablet, it will be retained and act efficiently when the stomach is too irritable to tolerate any other drug. By some the calomel is continued in the later stages, a minute dose being given several times a day. The evacuant is followed by bismuth, acids, alkalies, and, perhaps, an antiseptic. Opium is used by a majority of writers, and, when administered *rationaly*, is an agent of the greatest value. It should not be used until decomposing matter has been removed from the alimentary canal. When the passages are small, infrequent, and of bad odour, it is decidedly contra-indicated, and it should not be pushed to narcotism in any case. It should never be combined with the ordinary diarrhoea mixtures, which are usually given at short intervals, but should be administered *alone*, and at intervals varying with the symptoms.

Saint-Philippe denounces the use of opium even in small doses, and believes its effects are far worse than those of diarrhoea—the majority of writers who have used opium with proper discrimination do not share these views. Salol is recommended by Moncorvo in the diarrhoea of marasmic children. It may be given in daily doses, varying from $2\frac{1}{2}$ to 20 or 30 grains. Others again write disparagingly of the drug.

Several reports have been made throughout the year with regard to the action of lactic acid, and some insist that its use should be restricted wholly to green diarrhoea. We are in accord with what may be almost a consensus of opinion, namely that in some cases, it may have proved of value, but on the whole it is uncertain and unreliable. It may be recalled that it should never be given immediately after the meals as it oftentimes causes vomiting, and the coagulation of the milk into solid curds.

Antipyretics find few advocates. A prolonged temperature, ranging so high as to demand antipyretic treatment, is met with in but a small proportion of cases. An attempt at reduction of temperature by sponging and by the removal of decomposing matter from the intestinal tract, and the prevention of further decomposition by irrigation, is far more natural than the administration of antipyretic drugs. Harrington (*Omaha Clinic*) speaks highly of acetanilid. He employs it in doses of 2 to 4 grains for children from 1 to 2 years of age, to be repeated every four hours, combined with a full dose of whisky.

Antipyrin has been proposed as a substitute for opium for the relief of pain and nervous symptoms, and is, no doubt, in some conditions, a drug of considerable value. Muselli (*Journal de Médecine de Bordeaux*) has used it in diarrhœal conditions, but has observed no constipating effects—though some have not been fortunate in its use. Saint-Philippe speaks of it in the highest terms. In suitable doses he has never seen it act badly, even in infants. Mackenzie (*Chicago Medical Times*) advises arsenic when the passages are large and greenish, the tongue clean, with a bluish hue, with incurved tip and edges. For hæmorrhages and bloody passages oil of turpentine is highly commended especially by W. V. Wilson. He combines it with opium and sometimes with bismuth. Sulpho-carbolate of zinc is claimed to act as an intestinal antiseptic, sedative to the stomach, antispasmodic, and astringent. For vomiting creosote naturally finds a number of active advocates. Harrington administers $\frac{1}{2}$ of a drop, every thirty minutes in water or elixir of pepsin. Wilson has the creosote triturated with bismuth and sugar of milk. He also recommends a solution of carbolic acid and lime water as a most soothing combination, which quickly checks vomiting when there is fermentation of food. Fowler's solution is said to be serviceable in vomiting with profuse watery diarrhœa, the dose being very small. Mechanical treatment in as far as stomach-washing and irrigation of the colon are touched upon, has received but little attention during the past year. The value of both procedures is too well established to admit the supposition that they are falling into disuse.

PRESIDENTIAL ADDRESS.

To the Members of the China Medical Missionary Association.

DEAR BRETHREN :—

Having elected me to the post of President of our Association, it is my pleasant duty to address you, thanking you for the honour you have conferred upon me. I cannot make promises as to what I shall do in return for this honour, and to show myself worthy of your confidence, beyond assuring you that I shall continue to do all I can to advance the interests and urge the fulfilment of the objects of the Association at the head of which you have placed me. But although the President is the *nominal* head of the Association, the Editor of our Journal must of necessity be the link which binds us all together. He and the Secretary and Treasurer, do most of the work connected with the management of our Society, every member of which should do his utmost to aid them by doing heartily whatever service he is called upon to render.

Dr. Mathews is a busy man, like the rest of us, and those of our number who have survived the ordeal of getting a book through the press in China, know what a strain it must be upon him to edit in such an admirable manner the "China Medical Missionary Journal." Moral: Respond promptly to his requests for articles!

But our *raison d'être* as an Association is not merely the enrolment of a number of men into an aimless society, and our Journal was not intended to be a mere record of interesting cases and successful operations. These have their place, and are very helpful, but we aim at something higher and of more permanent value. On us devolves the task of investigating many subjects bearing on the welfare of the people among whom we dwell, and of enlightening them on many matters about which they are ignorant.

We have to sift the Chinese *Materia Medica*; to find out and test the therapeutic resources of the country; to introduce modern science in place of superstition and magic; to train students, and educate them in all that constitutes the science and art of medicine and surgery; to prepare books, which in course of time shall replace the accumulations of ignorance upon which for many centuries Chinese medical practice has been founded; and above all, to lead men to God; to tell them of a Saviour's love, and to inculcate by precept and example the "Enthusiasm of Humanity," the spirit of our Divine Master, who "went about doing good."

It was in order that we might help one another to the attainment of these and other objects that our Association was formed, and for which it continues to exist. The pages of our Journal show that much has been accomplished during the past six years, but that is only an earnest of greater things to be done in the future.

Most of the senior medical missionaries are in charge of old established hospitals, where the daily routine of work requires all their strength and energy, but we look with expectant confidence to our younger men to carry on with vigour the work already begun.

At the meeting of the Association held in Shanghai in 1890 several committees were appointed to undertake the collective investigation of various diseases; to collect information on *materia medica*; to prepare a vocabulary of medical terms, etc.

These committees, as such, have proved conspicuous failures, but individual members of them have done and are still doing good work. I have in my possession a list of terms compiled by our indefatigable *confrère* Dr. Kerr, and I believe others are being compiled by members of the Committee on Nomenclature. Work of this kind must of course be very slow, but it is satisfactory to know that it is being done, and that in due time the lists will be published.

This brings me to another subject which I have long wished to see broached. The initiation fee of one dollar and the annual payment of two by each member of the Association, has created an ever-increasing fund, for which there has thus far been no use; and many are asking, "For what purpose are we required to pay this yearly subscription?"

On referring to page 212, Vol. IV of the Journal, I find that it was decided at the Association meeting in 1890 to use the "Dues" collected for defraying the expenses connected with the committees then appointed.

Such being the case, I think it will meet with general approval if we authorize the appropriation of a portion of the fund referred to for the purpose of printing Dr. Kerr's "Vocabulary," and other lists of terms which may afterwards be presented for the approval of the Association. These lists should be returned to me, as "Chairman" of the Committee on Nomenclature, as soon as possible, with such corrections and suggestions as may be considered necessary, and thus we shall in the course of a few years, get together the material for that great desideratum, a "Dictionary of Medical and Scientific Terms," without which the confusion which now exists in the terminology of translated books is unavoidable.

My worthy predecessor in office Dr. Lyall, refers in his valedictory address to the need of occasional conferences, and I hope the officers of the Association will be able to make arrangements ere long for at least one such meeting.

The Association shall not fall asleep if I and my colleagues in office can keep it awake, and although we must not despise the day of small things there is no virtue in being content with our present little attainments, while such unlimited possibilities lie before us.

A. W. DOUTHWAITE.

Chefoo, 15th February, 1893.

The Right Rev. the Bishop of Massachusetts,
Phillips Brooks, D.D..

BORN 18 DEC. 1835. DIED 23 JAN. 1893.

The Church of English-speaking people has sustained a heavy loss in the death of "PHILLIPS BROOKS." "A man of the broadest mind and wisest culture (consistent with orthodoxy) the American church has ever known. His influence was great and growing greater every year." "Telegrams from England have reached this country testifying that kingdom's deep interest in this great man; great not as a student, or theologian, or mere orator; but as a man who impressed his fellow-men with great thoughts of God and Christ; bringing

God nearer to men and lifting up men to God. A man to whom nothing was great save God and Christ ; that he thereby might enter upon the greatness and blessedness (*Southern Churchman*). Then the *Churchman* repeating what he was not tells us *what he was*. He was a man ; and his manhood was so *totus teres atque rotundus* ; so altogether smooth and round, of its kind, and in its manner ; he was such a knight of Prince Arthur's Round Table, that this American people weep and lament for him, and American (and English) churchmen pray :

" Eternal rest grant unto him, O Lord.
And let perpetual light shine upon him."

OFFICIAL NOTICES.

The following have been duly elected members of the Association, viz., Toy Walter, B., Beattie, D. A., Bliss Ruth, Halverson, S. L., Bliss, E. S. and Fahmy, A.

*Election of Delegates to represent the Medical Missionary Association of
China at the Eleventh International Medical Congress at Rome.
September 1893.*

Notice is hereby given that Dr. B. C. Atterbury, who is now in the United States, has been nominated to attend the above mentioned Congress, so that members of the Association are therefore requested to vote or communicate with the Secretary in reference to this matter. Elected delegates who intend to read papers at the Congress are reminded that they must write and inform the Secretary-General, Prof. E. MARAGLIANO, Istituto di Clinica Medica, Ospedale Pammatone, Genova (Italy), stating their intention and notifying him of their subject.

S. R. HODGE, M.R.C.S., L.R.C.P.,
Hon. Sec., Hankow.

NOTICES OF BOOKS.

We have received a booklet entitled "A Treatise on Fevers," written by Dr. DOUTHWAITE* and "designed for the use of non-medical missionaries residing in the interior of China." Although the author is "strongly opposed to clerical missionaries dabbling in medicine" yet his common sense recognises that there is a real need for help to those missionaries who "are frequently compelled by circumstances to undertake the treatment of the most complicated cases of sickness." Indeed from this point of view there is little but praise to be given. The introductory remarks are good but he might suffer some alterations. Sun-flowers, which are plentiful in some parts of China, might be added to the list of drainers of the soil—the remarks on temperature might be supplemented by a few words on the temperatures of children, the fruitful source of untold anxiety to young mothers—surely every effort should be made to do absolutely away with closed drains running through a house, and if such efforts are unsuccessful would not the safer advice be *leave the house at once*. We would emphasize the remarks on the *washing of vegetables*. We are glad to see that

* Dr. DOUTHWAITE has so often interested and instructed us in our Journal pages, that we think, he was under the impression he was still writing for us, when he recommends to our non-medical friends, home preparation and home administration of aconite among other simples. We must express regret that the Appendix to which we allude has gone forth with Dr. DOUTHWAITE's fiat. We have occasion to add that to dissent to Dr. DOUTHWAITE's little Treatise on ethical grounds is to put it as politely, as we care to, mere twaddle,—the work was written to meet peculiar needs, and with the exception of some of the drugs, recommended in the Appendix, we think it has fulfilled the prescribed conditions, and will serve a very useful purpose.—(Ed.)

Dr. DOUTHWAITE is neither afraid of punkahs nor cold baths in the treatment of fever. There are three remarks on the general management of fever cases we would like to make: (1). More accurate directions should be given as to the quantity of food a fever patient should take—most amateur nurses overfeed. (2). It would be useful to point out that in all feverish conditions, except such as preclude any moving of the patient, the use of *two* beds, one for day and one for night, adds greatly to the comfort of a patient, and that in chronically feverish conditions, or in malarial fevers which do not speedily yield to treatment, a *change of air* is the best of all medicines. (3). The routine recommendation of *opium* for sleeplessness, irrespective of its cause, is, in our opinion, strongly to be condemned and is the one unfavourable criticism we have to pass. Surely the directions in disinfection of clothing are, to say the least, questionable. When dealing with such a virulent poison as that of scarlet fever the only safe thing to do, when clothes cannot be disinfected in a disinfecting oven, is to *burn them*. To sprinkle with a 5 per cent solution of carbolic acid is playing at disinfection, and though destruction may seem expensive, it is infinitely cheaper than a recurrence of the disease which may cost a valuable human life. To simply tell a layman that the diet of typhoid "should consist chiefly of milk" is not much help to him—quantity, frequency, and directions *how* to take the milk should all be added. Would not hot irrigation of the intestinal canal with a 1 per cent solution of creolin be a better treatment of the diarrhoea, than lead and opium? But we mention these things in a

friendly way, and only with a desire to add to the value of a little book which will, we trust, be an untold blessing to many a lonely missionary.

S. R. H.

PRELIMINARY NOTICE.

We are indebted to the eminent publishing firm of W. B. SAUNDERS of Philadelphia for the following works which arrived in time but for acknowledgment only, viz.:—

'A Manual of Medical Jurisprudence and Toxicology', By HENRY CHAPMAN, M.D., etc., etc., with thirty-six illustrations. Price \$1.25.

'A Manual of Practice of Medicine', by the same author, divided up into several sections, each section being prefaced by a chapter on general symptomatology.

'An American Text-Book of Surgery', by a collaborative staff of thirteen writers and edited by WM. W. KEAN, M.D., LL.D. and J. WILLIAM WHITE, M.D., LL.D. Price, cash—\$7.00; sheep \$8.00; half Russia \$9.00.

Notes on the Newer Remedies, their therapeutic applications and modes of administration by DAVID CERNA, M.D., PH.D.

The Scientific and Industrial Magazine, edited by John Fryer, LL.D., Shanghai.

We have before us the number for the present quarter. It begins with a most elaborate account of the World's Columbian Exposition—giving a description of the buildings with 14 illustrations so as to have a picture of them before our eyes as well as before our minds. After that follows the Rules and Regulations. Then comes a detailed account of the fourteen departments:—Agriculture, Horticulture, Machinery, Electricity, Transportation, Fisheries, Woman's Work, Mines, Forestry, Fine Arts, Manufacture and Liberal Arts, etc. After this follows more Rules and a great mass of miscellaneous notes covering altogether some 50 pages which make up the half of the whole number. The other half is occupied

with Zoology very fully illustrated with beautiful illustrations of Birds, with Notes on the Investigation of the Causes of Crime, etc., making it a very interesting number.

The Chinese note tells us that the Editor is going to discontinue issuing the Magazine for a twelvemonth as he himself intends going to the World's Fair. This number also completes the seventh volume. We very heartily congratulate the readers on getting such a useful Magazine for young China. When they begin to study Western methods they will find these volumes of immense service to them for they are not only beautifully illustrated but also very thoroughly explain very many subjects.

T. R.

The Medical Missionaries' Anglo-Chinese Diary for 1893. Shanghai: American Presbyterian Mission Press. Price 50 cts.

This is a useful practical publication and one we thoroughly recommend to our friends throughout the country. The Publishers' notice convey their thanks to Dr. DOUTHWAITE 'for advice and material' and suggest that "further help from him and other medical brethren will be much appreciated and utilized in the improvement of future issues." The contents table reads thus:—

1. Diary with Dates of Chinese Festivals, etc.
2. Register of Dispensary Patients.
3. Vaccination Register.
4. Obstetric Register.
5. Drugs, Instruments, etc. wanted.
6. Table of Doses.
7. The Principal Poisons and their Antidotes.
8. Table of Corresponding Degrees on the Thermometric Scales of Fahrenheit, Reaumur and Celsius.
9. Average Frequency of the Pulse.
10. Chemical Relations of Morbid Urine.
11. Obstetrical Tables.
12. Postal Rates.

The Missionaries' Anglo-Chinese Diary for 1893.

A companion work to the preceding and issued by the same enterprising "Mission Press" and as its name implies is for the missionary *pur et simple*. Graceful acknowledgment is equally made to those who have assisted in its compilation. The Publishers amid their many labours are to be congratulated upon the issue of this useful unpretending series. The subjoined will give an idea of 'Contents':—

1. Diary with Dates of Chinese Festivals.
2. Stations Visited.
3. Enquirers Examined.
4. Admitted as Candidates for Baptism.
5. Baptisms.
6. Marriages.
7. Funerals.
8. Suspended.
9. Excommunicated

10. Restored to Communion.
11. Discourses Delivered.
12. Days Spent in Itinerating; Distances Travelled; Cost of Itineration.
13. School Examinations.
14. Books Sold, etc.
15. Postal Rates.

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We beg to acknowledge the receipt of a most interesting brochure "The Physician; His relation to the law, and the legal rules governing the collection of his Fees." By H. G. BLAINE, A.M., M.D., etc., Toledo, Ohio. Dr. BLAINE has given us within the space of 46 pages a fund of most useful information, to which we hope to refer later on. Dr. MAIN's Annual Report of the C. M. S. Hangchow Medical Mission for 1892 accompanied by Hospital Notes by Mrs. MAIN comes equally too late for anything other than courteous acknowledgment.



HOSPITAL REPORTS.

CHURCH OF ENGLAND MEDICAL MISSION
AT PEKING.

We are glad to note the growth of this new work as reported by the physician in charge of it, Dr. A. MARSTON. She writes as follows:—"Our medical work was commenced in the summer of 1890 by opening a dispensary for women and children in the mission compound. As it was entirely a new enterprise, and the doctor herself a new comer, with difficulties of language, etc., to overcome, progress was rather slow at first, and the want of suitable premises was a great drawback. The year 1891, however, showed distinct advance. Thanks to the liberality of friends a good sized property, close at hand, was purchased for the medical mission. The services of Miss PARSONS were also obtained as dispenser, and a young native Christian woman was placed under training as assistant. The new dispensary was opened in October of that year, and the attendance of women and children has increased steadily since, though with fluctuations, owing chiefly to inclement weather. Since the commencement of the work the number of patients has been as follows:—

Out-patients (new cases)	2,000
Attendances	4,000
Visited at home.....	114
Number of visits paid.....	270

Thirteen women and children have been received as in-patients, but it is impossible to do much in this department of work with our present buildings. There have been some accessions to the Church, and a considerable number of the patients are present at the Sunday services, from time to time."

MEDICAL WORK IN THE SOOCHOW DISTRICT.

Dr. PARK in his Report of Work in the Soochow Hospital says:—

Last year I prefaced the hospital report by a few remarks rejoicing over the fact that it was once more, for the first time since 1884, to be signed by two foreign physicians.

This year alas! I am once more left to sign it alone.

After remarks on country work, he speaks of the wider reputation gained by the hospital, and gives an interesting account of one of the causes, from which we make full extracts:—

There are said to be 2,648 "official residences" in Soochow, occupied by expectant mandarins, to say nothing of the scores actually in office, and during the ten years the hospital has been established here, I have often wondered how it was that nothing ever happened to any one of high rank to cause them to turn to the hospital for aid and thus publicly acknowledge its existence and merits.

The *something*, happened this year, not to the person of the high mandarin himself, but to some one whose life or death involved his official existence, and the impression made by the cure was the same as if it had been performed on his own person.

A nephew, who stood in the place of a son to the commander of the Governor's troops in this province, had a falling out with his uncle's aide-de-camp, and calling in assassins to his aid, undertook to kill the man one night in May, as he was returning from a bath house, accompanied by a single attendant and unarmed.

They fired two shots at him with pistols, but these failing to take effect, they cut him down with swords and then, as he lay on the ground, hacked his head to their hearts' content and left him for dead. The attendant fled and reported what was going on, and

runners from the Yamèn came and carried the unfortunate man home, and sent post haste for the foreign doctor. I found him in a room, the doors and windows of which were closed tightly to keep out the air. The air was so bad it made my head ache to stay in it 15 minutes, and in the midst lay the poor man on a couch, tossing and turning in a raging fever, and complaining of pain in his right hand, which was dangling at the wrist, and which he was holding up and moving to and fro in a way most pitiful to see. I made as thorough an examination as I could under the circumstances, and then retired to the reception room to think. I knew if the man died in the hospital it would be all the worse for the hospital, but on the other hand, as long as there was life it was my duty to do all I could to save him, and leave the result to a Higher Power.

Examination at the hospital revealed eleven wounds. Five were across the top of the head, ranging from three to six inches in length, all of them to and into the bone, and one of them quite through to the dura mater, though fortunately neither membrane nor the brain were injured. Several of the wounds were in slanting directions, and when the sword struck the skull, it clipped up great pieces of the bone. One large skin flap was turned down over the forehead almost to the eye, and there had been no effort to replace it. A long cut extended from the left forehead across the bridge of the nose, splintering it somewhat, then through the corner of the right eye and down on to the right cheek. Three great gashes were on the side of the neck, and as the man was quite fleshy, they had gaped open, one of them to the extent of at least four inches. One of these cuts also extended through the helix of the right ear. There was a thrust into the left elbow joint striking the head of the radius, which could be distinctly seen with the mark of the sword upon it. The most painful wound of all, however, was the one at the

wrist of the right hand. As I have already said, the hand was hanging down. The wound was on the back of the hand and the sword stopped just short of the arteries, else the man never would have been seen alive by me. It was almost exactly in the joint, only a small piece of one of the bones forming the joint being chipped off. We cleaned the patient up, removed dead bones, replaced skin flaps, put the arm up in splints, dressed all the wounds with antiseptic gauze soaked in creolin oil, relieved the pain with morphia, reduced the fever with quinine and soon had the satisfaction of seeing our patient begin to improve. On about the third week the anticipated trouble with the hand began. The wound had about filled with granulations, but some pus managed to filter down among the tendons of the hand and arm and set up an inflammation. Failing to subdue the inflammation, I decided upon a counter opening and drainage. This the patient and friends would not hear of, and I was debating the point of telling them he might go if they would not let me treat the case as I saw best, when they proposed a solution of the difficulty; I should go on treating the wounds and they would have a native doctor to treat the inflammation. His treatment consisted of cold poultices of green herbs pounded to a pulp, with an occasional steaming over a bowl of a hot decoction of grasses, followed by spraying the parts with "sam shu," the spray being formed by the doctor's lips. The poultices were renewed every morning and as, after a time, merely having them pounded, did not seem to make them as effective as they might be, he sent for his pupil and made him sit up all one night and chew the herbs for next morning's poultice. He also sent for this same pupil one day after the pus began to escape, and made him try to draw it out with his mouth.

Theoretically this ought to bring the pus out in abundance, but as I saw it, it was a failure; pump he ever so hard he could only get out a very little. After a time the

poultices caused so much irritation of the skin, I had to have them stopped.

Progress was slower than it would have been with proper drainage, but in the end the hand made a very good recovery. The elbow never gave any trouble and got well without any stiffness whatever. The wounds on the head, neck and face healed as rapidly as we could expect, and though they left large scars the patient manages to hide most of them with his hat, collar, and a pair of tremendous spectacles.

As soon as we felt quite certain the man was out of danger, we sent to the General for a hundred dollars for the hospital, and the hundred dollars came. By and by a Chinese pay-day came round, and we sent for another \$100 and got it too.

Then as I was leaving for Japan he made me a personal present of \$40.00, and the day I started sent me an official document conferring upon me the honorary mandarin button of the 5th rank and appointing me honorary official surgeon. I asked him to confer a mandarin button upon my assistant, Dr. DZUNG, who had helped me so faithfully with the case, and while I was in Japan he complied with that request also.

"G."

REPORT OF NANZING DISPENSARY.

We give below extracts from the above report of work carried on by Mr. C. K. MARSHALL in connection with Dr. PARK's hospital in Soochow.

Nanzing clinic days are only nine in a month, so as to free myself for country work the rest of the time. In my trips to the country the patients always come on boat for treatment and drugs, and in the boat I talk to them about Jesus as their Saviour. On several occasions I had patients come on the boat in the evening for treatment, and I would talk about Jesus, and they listened till late in the night before they would leave. Several patients told me they were praying to the true God and expressed their desire to be saved through Jesus.

I am glad to report that God is opening the way amongst the higher class. I have been invited to their houses to talk about the foreign drugs, and always talk about the foreign doctrine. Some of the wealthy have come to the preaching also, and have promised to help the dispensary by giving money to buy drugs. I have received from three families here \$44, and would have got more, but many did not wish to give for fear the money would go towards renting chapels and opening schools. So they prefer to wait and see how I will conduct the dispensary, but many are anxious for a foreign doctor who will stay amongst them. This is very natural, for the drugs and much of the treatment are from foreign countries, and they wish to see the dispensary carried on on a larger plan. I hope the time is not far off when the Board of Missions will send a doctor here. There are a great many towns near here, where profitable medical work could be carried on.

"G."

DOSHISHA HOSPITAL AND TRAINING SCHOOL FOR NURSES.

Sixth Annual Report.

Kyoto, Japan.

We are happy to extract from the above report some facts about the earthquake sufferers. "As soon as information of the great calamity of October 28th was received a passport was applied for by telegram for permission to take a corps of physicians and nurses to that region. On its receipt two days later we started with a full supply of medicines, surgical appliances, dressings, etc., Dr. BUCKLEY taking full care of the hospital in our absence. President KOZAKI preceded us by a day, and arranged as far as possible for our coming. We were cordially received by government officials, and entered upon service at once. We were soon joined by Dr. KAWAMOTO of Kobe, and later by Rev. Mr. CLARK, of our mission and by four of our Doshisha College students. A large room in a school-house, one of the

very few buildings remaining in the city that could be safely occupied, was assigned us for service; school desks, placed together and covered with mats, served as tables; the large yard in front as a waiting room; while straw mat pavilions made admirable hospital wards. The brief service was heavy and the injuries treated were of exceptional severity. Fractures, dislocations and flesh wounds predominated. These latter were especially severe about the head, face and back, and having, in most cases, received no attention, were in a filthy and dangerous condition. Kindness and sympathy characterized the attentions of the well to the injured,—the latter being brought on litters, in such numbers that by ten o'clock in the morning, the common clinic yard and the street in front of the building, would be well filled with the sick and their friends. The patient submission of the injured, their courage in suffering, and their confidence in and appreciation of the service rendered, contributed much, toward sustaining the members of the different corps in the difficult performance of their work. Earth vibrations continued during the time of the service, as many as sixty-six being recorded in one day at the meteorological station at Gifu, but they did not interrupt the work of our corps, though at night they sometimes sent us hastily into the yard. It was a somewhat novel experience to conduct surgical work when, in the midst of an operation, patient, surgeon and nurse would find themselves shaken and separated from each other by the strong earth vibrations, while among the less injured patients and friends there would be a general stampede for the door."

MEDICAL NOTES.

Koch's tuberculin, of which so much was expected when preparing our last report, I have abandoned in the treatment of pulmonary phthisis, the results in some cases showing it to possess even when used with the utmost care and in small doses, alarming

capabilities for harm. Some of our cases, steadily growing worse under its influence, began to improve when the tuberculin was abandoned and a different line of treatment pursued. During the year, as previously, I have practised, in some cases with gratifying results, intra-pulmonary injections, the long needle made especially for this purpose conveying the medicine directly to the pulmonary cavity. The object aimed at, both by injection and by treatment, has been to favor fibrous hardening of diseased lung tissue. I have recently, in the case of a cavity communicating with a bronchus, alternated these injections with the new germicide, the peroxide of hydrogen, with encouraging result. About 28 per cent of all the deaths in Japan are due to tuberculous disease.

The treatment of Kakke (Epidemic Multiple Neuritis) has continued so satisfactory during the last year as to merit notice in this report. Not a case of death from this disease has occurred in my practice now for five years, though during this time our large Doshisha College has passed through two epidemics (one severe) of this affection, and three cases have been brought into the hospital in the last stages of the disease ("shōshin" commencing heart paralysis) and from which the Japanese physicians predicted certain death. The treatment pursued is, in general, soda salicylate combined with spirits ether nitrate, and potash acetate if the kidneys are inactive, with strophanthus if the heart is weak, and with sodium bromide if labored breathing and rapid heart beat show that "shōshin" is beginning. With these remedies, and with the avoidance of rice from the dietary, and a change, in certain chronic cases, from the plain to a moderate altitude, I now approach the treatment of kakke confident of success.

I am not aware that this combination of treatment, with the prominence given to sodium bromide in "shōshin" is em-

played by others than myself and a few of my medical friends to whom I have spoken of my experience. I therefore give it notice in this report.

“G.”

THE ANNUAL REPORT OF THE MEDICAL MISSIONARY SOCIETY'S HOSPITAL. 1892.

We subjoin a few extracts from the following :—

“The evangelistic work has been carried on as usual, the chapel being always well filled for daily morning prayers. The books placed in each ward have been largely used and many of the patients have shown a marked interest in the Christian religion. Sixteen united with the 2nd Presbyterian Church which is in connection with the hospital. The addresses of in-patients have been forwarded as usual to the missionary in charge of work nearest to where the patient lives. Favorable reports have thus been received of patients that have returned to their homes. The two hospital schools have been well patronized and the instruction thus given we may well believe bears excellent fruit.”

Statistics give : In-patients 1,074, out-patients 23,671, operations on in-patients 1,562, on out-patients 2,408, including extraction of teeth 690, vaccinations 100. The tables contain the statement of 59 lithotomies, with not a single death. 84 cataract operations, with restoration of sight in 67 cases, and partial benefit in 9. Of the 50 obstetrical operations, there were requiring forceps 31, requiring version 7, craniotomy 7, delivery of head left in utero 1, manual assistance 5. Added to these operations or causes of were extraction of placenta 9, shoulder presentation 7, hydrocephalus of fœtus, hydatiform mole, each 1. Our reviewer here reports at length upon case No. 3, *Cæsarean section*, but it may be recalled that Dr. SWAN, the operator, himself has kindly given us an article upon the same case. Vide Vol. VI, No. 3, Page 173.—(Ed.)

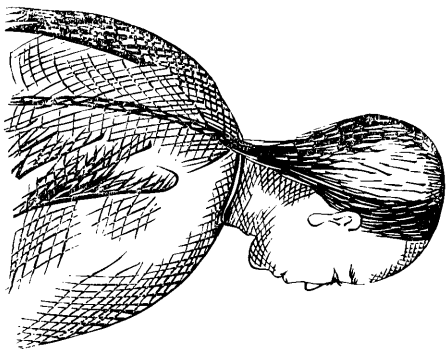
The two following are interesting cases :—

Sarcoma of the Skull.

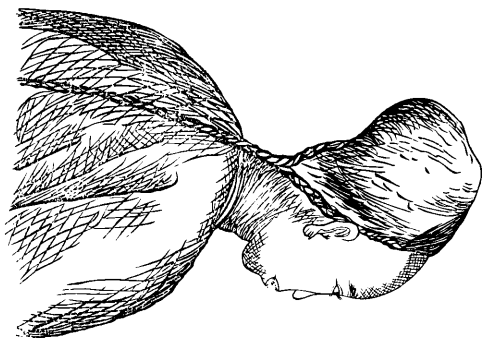
The cut accompanying is from a photograph of a large tumor of the skull. Mr. WONG, a Kiha youth aged sixteen, a student by occupation, came into the hospital May 17th for the removal of this tumor. History :—No hereditary disease was in the family, who are well-to-do people living in Canton. The youth had always enjoyed good health until nine months previous to entering the hospital, at which time a small and very painful growth appeared over the occipital protuberance. This growth steadily increased in size, spreading under the scalp until one-third of the surface of the skull was covered.

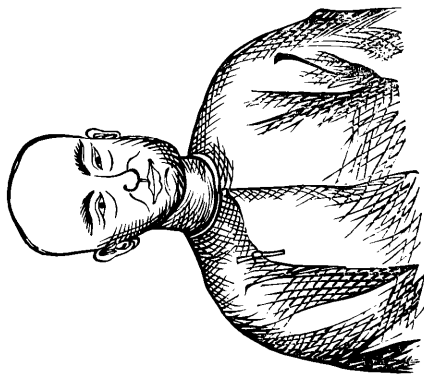
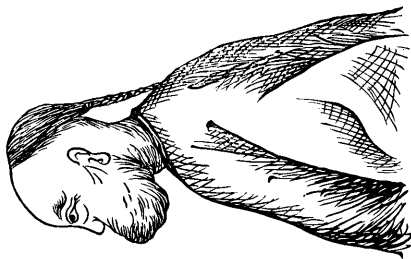
On presentation, portions of the growth showed distinct fluctuation, but the greater portion was very dense and hard, the entire tumor being firmly attached. The principal symptoms complained of were pain, headache and vertigo, the latter but slightly present after times of special exertion. A diagnosis of sarcoma which probably involved the skull was made, and the patient and his friends were informed, not only of the danger of the operation but of the certainty of the growth to recur, probably at an early day. They insisted very strongly on an operation, even though the patient might not survive it.

After a week of preparatory treatment the operation was performed on May 25th. The tumor was quickly dissected off, hæmorrhage being largely controlled by an Esmarch bandage. The centre of the base for some two inches in circumference involved the outer plate of the occipital bone, and this portion was thoroughly scraped and the thermo-cautery applied to the surface of exposed skull. The patient suffered profoundly from shock and the wound was not permanently closed for over four hours, at the end of which time he fairly rallied. The weight of the tumor was two and one half pounds. The wound united readily and



Sarcoma of the Skull.





Excision of Lower Jaw.

the patient was discharged in June. At this time however there was some pain and slight enlargement indicating an early return of the affection.

In this case the important question was between operative and non-operative interference. The best authorities, such as Erichsen and Gross, recommend operative interference even though the relief be temporary. The extreme urgency of the patient and his friends for an operation also warranted the risk which was involved.

Excision of Lower Jaw.

Mr. NG, farmer from Tsang-shing, aged thirty-four and married, appeared at the hospital on May 4th for the removal of a tumor involving the left side of the lower jaw. The growth had been present for three years and was gradually increasing in size. Pain of a dull aching character had been constantly present, and besides a recently marked difficulty in deglutition, as well as great inconvenience in taking food.

The growth was diagnosed as a form of sarcoma, probably the round-celled form, and involved the body of the jaw from the angle on the left side almost to the attachment of the masseter muscle on the right.

The patient was much reduced and anemic and showed a cancer cachexia, but no enlargement of the neighboring glands could be detected. After a week of preparatory treatment nearly the entire body of the lower jaw was excised in the usual way, a semi-lunar incision being made under the lower edge of the bone, thus leaving the mouth intact. The disease was confined to the jaw, but the tumor had grown backwards rather than forwards, filling the mouth and pressing upon the base of the tongue. After removal the tumor weighed one and one-fourth pounds. The geno-hyoid and other muscles were gathered up and attached along line of incision, but after the

wound was closed difficult deglutition and dyspnoea were so marked as to require an assistant for some hours to steady the ligature which had drawn forward the muscles which had been attached to the symphysis. No support but the hand of an assistant would answer, as the patient was very restless. Most of the wound healed by first intention, and the patient was discharged cured on May 28th.

It may be noted that this case was peculiar in that the tumor extended so far past the symphysis, thus greatly complicating the operation, also that it extended backwards so far making the dissection of the attachments along the inner side of the jaw more difficult. The accompanying sketch is from a photograph of the case before and after removal.

"G."

SECOND ANNUAL REPORT OF THE ICHOWFU DISPENSARY IN CHARGE OF THE AMERICAN PRESBYTERIAN MISSION. 1893.

Dr. CHAS. F. JOHNSON's neatly prepared mimeographic report recounts faithful work for the past year. He tells us that the total attendance has been 2,570. Of these 1,043 have been new cases and 1,527 return visits. The surgical operations have been but few, and though the number of new cases has been less than last year still it is encouraging to note, the greater number of return visits evidencing some confidence in the foreign "medicine shop." We further note that Dr. JOHNSON has assumed charge of Dr. NEAL'S class during his furlough. He concludes a very interesting report by devoutly acknowledging the Divine care which has guided us through another year, and with a prayer of general applicability "that the coming year may see more accomplished for the Master under Whom we are serving."

P. M.

CORRESPONDENCE.

To the Editor of

THE MEDICAL MISSIONARY JOURNAL.

MY DEAR DR. MATHEWS.

In accordance with your request, I venture to send to our Journal, some of the thoughts which suggest themselves upon retrospect of the work done in the hospital during 1892.

My long cherished wish for a medical colleague has this year been realized, in the appointment of Dr. G. P. SMITH for the Tientsin and country work.

The results of this appointment have been most gratifying. First, the patients have benefited not a little, the treatment being far more thorough than it could possibly have been in the hands of only one medical man. In addition, Dr. SMITH has from time to time done medical work in the towns and villages near Tientsin; and thus thousands of sick and suffering ones have been treated who must otherwise have been beyond our reach and power to help: for having no fully qualified native assistants, and no time as yet to train such, it has been beyond my power to attempt this most interesting and encouraging form of medical missionary work.

A glance at the statistics for 1892 indicates progress and growth in every department.

5,711 patients have been treated in the dispensary, representing
16,572 visits, while
622 have been received into the wards of the hospital.

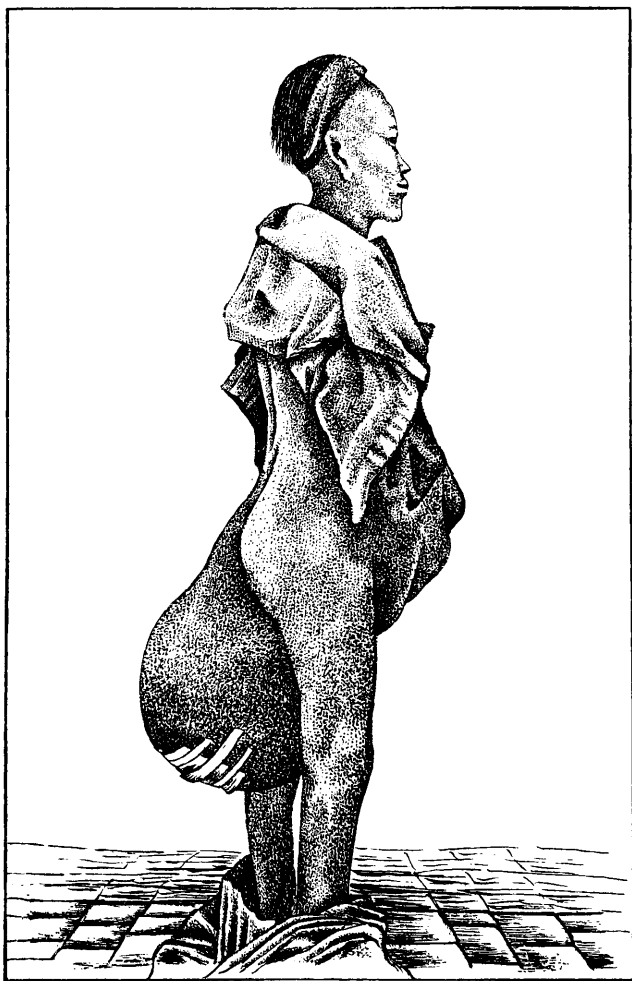
One delights, in thought, to follow these patients to their homes and to think of the goodwill, friendship and gratitude to God which we believe scores of them cherish.

Reports come to hand from time to time which impress on us the far reaching influence of medical missions, a thought which is always calculated to encourage us during those times of despondency which probably come to every medical missionary and are due to diverse causes. It may be the distrust and antipathy to foreigners which your patient displays, or his stupidity, leading him at times to thwart all one's efforts at aseptic surgery, or his self-opinionativeness which makes him often despise advice and medicine alike.

Of such reports two have specially cheered us. First the case of a patient treated in the spring for hepatitis and jaundice, who upon reaching home, removed his family idol-shrine and succeeded in inducing four neighbours to do the same. A father and two sons in the same village who became in-door patients through his recommendation, have also become enquirers for admission into the church.

Mr. WALKER of the Scot. Nat. Bible Society states how cheered and helped he was when upon one day endeavouring to sell some Scriptures in an anti-foreign town in Shantung, a man in the audience exhorted the by-standers to purchase them, saying: "This is a good doctrine. I have just returned from Tientsin, where I was treated in the hospital and learnt about this doctrine." He furthermore insisted in helping Mr. WALKER to convey his books to the next town, seeing he had some difficulty in obtaining assistance.

Regarding the medical work, it is interesting to note a case of vesical calculus (uric acid, with covering of phosphates) weighing $4\frac{1}{2}$ oz., of twenty years' duration. I removed it by the median perineal incision, and had



very little hæmorrhage; in one month the case left cured. This is the first case of vesical calculus which I have had occasion to operate on. Others have come but refused treatment.

The faithful recording of one's failures in medical work is often most helpful to others, though humiliating to the writer. I thus venture to mention what I have had to learn from bitter experience, that in the excision of simple tumours of long duration and large size whenever any of the skin is adherent it should invariably be removed, as in the case of malignant tumours, otherwise sloughing of the flap will in all probability occur. This accident has happened in my experience twice: (1). Case of molluscum fibrosum, weight over 20 lbs., duration 20 years. (See accompanying sketch). (2) Case of lipoma of perineum, weight about 5 lbs., duration 8 years. Recovery I am thankful to say occurred in both cases but it was greatly retarded by extensive sloughing of the portion of adherent skin I had omitted to remove.

Who of us has not felt discouraged in the treatment of chronic dysentery!

I had a case which resisted treatment for weeks and in which the usual remedies had all been tried, it yielded very rapidly however to 1 dr. of a crude infusion of the *Ailanthus glandulosa* root-bark. (See Medical Reports, Chinese Customs Service 1884.) This drug has a great reputation in Tientsin. In Dr. FRAZER'S hands it has been most useful, and the French R. C. nurses use it very extensively among the Chinese. Would you kindly solicit the views of our colleagues in China upon the drug. Seeing it grows wild (going by the name of ch'ou 臭 ch'un shu 樹 in Tientsin) this ought to be an easy matter. We have given the new modification of ipecacuanha powder (pulv. ipecac sine emetine) a trial in several cases of dysentery but it does not seem to be a great improvement on the old form, any way several cases were unable to retain even 15 grs.

Concerning spiritual results, we have had the joy of receiving some into the church and of taking others on probation. During the autumn there were not a few deeply interested in the Gospel as a result I believe of special prayer which was being offered for us in England by many earnest Christians, most of them poor labouring men, not poor however in faith, or the power of prayer.

This letter is however, I fear, far too long for your correspondents' column, so I will not add more.

Believe me,

Sincerely yours,

F. C. ROBERTS.

SHANGHAI,

March, 1893.

MY DEAR DR. MATHEWS.

I will do the best I can with regard to my medical experiences and observations in China.

In the spring of 1891 it fell to my lot to do the evangelical work in connection with our mission in Chinkiang.

I concluded that some medical work, such as I could do, would assist me in opening new stations, and in gaining the good will of the people generally.

Of course I had to turn away many cases, some of which I did not understand, and others of which I was not prepared to treat. I was able to cure many cases of itch, sore eyes, chills and fevers, etc., and to help many other troubles.

It is not now my object to give an account of the medical work done, but to give some extracts from my diary illustrating the Chinese physicians' way of practicing medicine.

A thin, pale and haggard Chinese boy appealed to me one day for help. I found on examination that his liver was very much enlarged, and that the native physician had performed acupuncture on his stomach in many places.

I also recall another case of a young girl. She had suffered for some time with pain in her shoulder. It was heart rending to hear her wailings and pleadings as her relatives held her for the painful operation.

I was often appealed to by Chinese suffering with chronic sores, many of which I believe were made chronic by using a black sticking plaster, that confines all discharges, and these inflame and convert small sores into large and chronic ones.

My cook's child had small pox. The physician prescribed a bed and pillow of damp clay. The child soon died.

I saw a Chinaman take a white powder, spit in it, stir it with a chopstick; then put some of it around a woman's tooth, strike her a light blow under the chin, and then lift the tooth out with his fingers without seeming effort. The woman went off spitting blood, and complaining that he did not pull the tooth without pain as he had promised.

The following prescription was given in my hearing as a *sure* cure for leprosy. Get a snake just three feet long, cut it up into short pieces and broil on tiles over the fire. Take the pieces that rolled off the tiles while broiling, cut up fine, mix with rice and a certain medicine, and give to a snow white duck without a single black feather.

In a few days the duck's feathers would all fall off. The leper was then to eat the duck which would *surely* cure him.

I came across a physician, who claimed to be able to cure any disease without medicine by simply rubbing the parts affected. He said that when a man's spirit revolved ra-

pidly he would keep well; slowly, he would become sick, and, if it ceased to revolve he would die. He claimed that he could increase the revolutions of the spirit at any point of the body and thus cure any disease whatever. He is now doing a flourishing business in the city of Yangchow.

Yours sincerely,

R. T. BRYAN.

THE NEWBERRY LIBRARY,

CHICAGO, ILL., U. S. A.,

Nov. 14, 1892.

MY DEAR SIR.

The Trustees of the Newberry Library desire to have the reports and other publications relating to the subject of medical missions fully represented in the medical department of the Library; and they beg to ask that you will kindly send to the Library reports of hospitals and dispensaries, and any other printed matter relating to the subject. You will receive by this mail a copy of our present list of medical periodicals.

Your co-operation in making this collection will help to illustrate the beneficent work of missions, will contribute to the advance of medical science, and be highly gratifying to the Trustees.

Any expense you may incur for postage or other charges will be promptly remitted to you.

Yours very respectfully,

E. W. BLATCHFORD, *President.*

W. F. POOLE, *Librarian.*

MEDICAL PROGRESS.

THE TREATMENT OF CHOLERA.

NOTHNAGEL and KAHLER (*Münchener Med. Wochenschrift*, August 16, 1892) have, at the request of the Austrian government, published some suggestions for the treatment of cholera. The use of dilute hydrochloric acid (8 or 10 drops in a quarter of a glass of boiled water) after meals, the relief of constipation by enemata of boiled water, and the careful treatment of already-existing gastric or intestinal catarrh are advised. Colds must be guarded against, and attention given to general hygiene of the body (baths, exercise, sleep). Every diarrhoea must be treated as if it were a choleraic diarrhoea. The patient must be put to bed, if possible, after a warm bath or a hot sitz-bath, with warm compresses on the abdomen, the nourishment limited to barley-broth, and tincture of opium, with tea, rum, or cognac, given. If nausea or vomiting appear, carbonated, not alkaline, water is recommended. All drinking-water must be first boiled. Before the patient is put to bed an energetic, cold rubbing down is of value, but this should be supervised by the physician. Calomel comes into consideration only in the very beginning of the disease.

For the treatment of a well-established cholera attack the tannin enemata recommended by CANTANI are best suited,— $\frac{1}{2}$ to 2 litres (quarts) of boiled water, at the temperature of 39° to 40° C. (102.2° to 104° F.), in which 15 to 20 grammes ($3\frac{1}{2}$ to 5 drachms) of tannin are dissolved, are discharged into the intestines by high irrigation. This procedure is best suited to the premonitory stage, but can be of use in the fully-developed algid stage. The tannin has a limiting action on the development of

the comma bacillus, but is also supposed to counteract and favor the quick elimination of the cholera poison from the blood.

In the stage of asphyxia, in order to counteract the thickness of the blood, hypodermatic or intra-venous injections may be used with advantage. For the first, 2 litres (quarts) of distilled water are boiled for half an hour in a vessel, the mouth covered with cotton, 6 grammes ($1\frac{1}{2}$ drachms) of carbonate of soda and 8 grammes (2 drachms) of sodium chloride dissolved in it, and cooled to 40° C. (104° F.) This fluid is injected, by means of a large, hollow needle, through a fold of skin of the abdominal wall into the cellular tissue. The skin is first to be made thoroughly aseptic. Instead of a syringe, a burette is connected with the needle by a rubber tube. The whole apparatus should be previously disinfected. In the course of a quarter to a half-hour $1\frac{1}{2}$ litres (quarts) of the solution can be introduced. The skin of the thigh or interscapular region may also be chosen for the injection, and the resulting swelling can be reduced by massage. If after the third injection the relief is transitory, intra-venous injection is to be tried. For this the same solution can be used, or a solution of 5 grammes ($1\frac{1}{4}$ drachms) sodium chloride, with 10 grammes ($2\frac{1}{2}$ drachms) sodium sulphate to 1,000 grammes (1 quart) of water, previously thoroughly filtered and sterilized as the other. In a quarter of an hour, from 2 to $2\frac{1}{2}$ litres (quarts) can be injected into a vein in the arm. The first appearance of the algid stage is the indication for these procedures. For stimulants, champagne, fermented mixtures, heavy wines with the addition of 10 to 20 drops of ether, tea with brandy, subcutane-

ous injections of camphor in olive-oil, in the proportion of 1 to 9, warm baths, energetic and long-continued rubbing with alcohol, or with cloths dipped in ice-water, and warmth to the extremities, are useful.

In case of muscular cramps, injections of morphine are useful. The treatment of the typhoidal condition often observed must depend upon the individual case. It is important to watch for and treat renal complications, and especially to bear in mind the necessity of maintaining the general nutrition.—*The Boston Medical and Surgical Journal*, September 8, 1892, p. 247.

HABITUAL CONSTIPATION.

Two patients had had absolute obstruction for some days, so that symptoms of incipient paralysis of the bowels were present. Severe meteorism, vomiting, oppression, anxiety, loss of strength, cold sweat, feeble pulse were caused by the enormous hard, dry masses found in the rectum. In view of the necessity of immediate relief, two pieces of wood were shaped like a glove-stretcher, the ends smoothed and oiled.

Dr. ISING introduced this through the sphincter and into the fecal mass, and stretching the sphincter energetically, began to loosen the hard masses. In about twenty minutes very offensive gas was given off; he then withdrew the instrument, gave an enema of cold water, and kneaded the belly with a cold wet cloth wrapped around the hand. The bowel was quickly emptied and comfort restored.—*Dietetic and Hygienic Gazette*.

PAPAIN.

Dr. G. HERSCHELL, in a memoir on "Indigestion," describes the origin and nature of this ferment, and cites the evidence upon which its powerful peptonizing influence was established. Experiments conducted with a view to deciding whether the substance produced true peptone or not resulted in conclusive proof that the former was the case. For practical purposes, says

Dr. HERSCHELL, as a digestive ferment, to be given medicinally, papain presents the following advantages over pepsin and pancreatin:—

1. It will convert or digest many more times its own weight of meat than they are able to.
2. It can be used when pepsin and pancreatin are contra-indicated or powerless. (This latter, as known, is the case when the stomach contents are too concentrated or insufficiently acid. Under these conditions pepsin is of little or no value, while papain acts energetically).
3. As regards albuminoids, it combines in itself the joint action of pepsin and pancreatin.

4. It can be given combined with acids, alkalies, or antiseptics, as indicated by the demands of the case.

5. It has a local action on the stomach that pepsin has not.

6. It is not so repulsive to the mind as pepsin, as it is purely vegetable.

Thus, papain is indicated in deficiency of the gastric juice, excess of unhealthy mucus in the stomach, irritable condition of that viscus, and duodenal dyspepsia.—*Canada Medical Record*.

SYMPHYSIOTOMY.

On Tuesday, November 22nd, Dr. W. J. SMYLY, Master of the Rotunda Hospital, Dublin, performed the operation of symphysiotomy, the first of the kind, we believe, in the United Kingdom since 1782. At the time of going to press (nine days after the date of the operation) mother and child were doing well.—*The British Medical Journal*.

We take the two following extracts from the *N. Y. Medical Journal*; they were presented at a meeting of the Society of the Alumni of Bellevue Hospital:—

THE PRESENT STATUS OF DRAINAGE IN SURGERY.

Dr. A. M. CARTLEDGE, of Louisville, read a paper on this subject. He presented the following summary:—

1. The principle of artificial drainage in surgery, while very ancient, is imperfectly understood, and is oftentimes as much a factor for evil as for good.

2. Though our knowledge of the principles which govern a healthy regeneration of wounded structures has greatly advanced, and our progress in wound therapeutics kept pace, we fail to appreciate how artificial drainage can be altogether dispensed with in surgical practice.

3. To lessen the use of artificial drainage it is necessary to thoroughly apply the principles of asepsis and antiseptis, combined with buried sutures, fixation, and alimentary or systemic drainage.

4. Where from any reason exudation cannot be controlled, its removal by drainage is a safer surgical measure than any attempt at sterilization *in situ*.

5. The time required for primary drainage is from twenty-four to sixty hours; to wait longer is to encourage trouble; to remove it sooner than in twenty-four hours is taking risk not warranted in the premises.

6. Capillary is to be preferred to tubular drainage in wounds other than those of the large cavities. For this purpose absorbable material should be selected, catgut being the best.

7. Where it is desirable to combine hæmorrhage and drainage in the same measure, the strips of iodoform gauze, as recommended by Mikulicz, fulfil a most useful purpose.

8. Where natural drainage can be utilized without producing unsightly cicatrices, artificial drainage should be dispensed with; when feasible, combine the two.

9. Wounds involving the brain and spinal cord had best be drained to avoid mechanical violence to the function of delicate structures by retained serum.

10. Necessity for artificial drainage will most often arise in wounds invading the large cavities; herein flexible tubular drains (glass) best meet the requirements, aided or not by materials acting by capillarity.

11. The method of secondary suture after primary wound secretion is over, advised by KOCHER, seems to possess no advantage over drains that have to be removed, and certainly is not to be compared, in convenience, comfort, etc., to the patient, to absorbable capillary drains.

A NEW OPERATION FOR THE RADICAL CURE OF INGUINAL HERNIA.

Dr. GEORGE A. BAXTER, of Chattanooga, Tenn., read a paper on this subject. He presented an operation radically different in principle from any before given. It consisted in a prolongation of the incision, after the ordinary management of the sac and after ligation through the internal ring into a more or less extensive laparotomy as the exigencies of the case demanded; lifting the neck of the sac into the abdominal opening above the ring and its fixation there by a deep suturing; cutting off the sac close above the peritonæum and its closure by buried suture; and a final closure of the abdominal opening by this and a more superficial set of sutures which passed across above the closed sac and peritonæum and underneath the deep fasciæ, and were intended to approximate the homologous tissues of the abdominal wall. The ring was closed with crucial sutures dipping over the spermatic cord and traversing the tissues, and the inguinal canal closed with deep sutures alone.

He specified the following points of originality: A line of incision suitable for any inguinal hernia, by the fixation of the sac above the peritonæum a deflection of all abdominal expulsive force from the ring and canal, the thickened lining of the internal ring, and the method of closure of abdominal incision. The advantages alleged were: Quick cure with avoidance of the necessity of a truss, deflection of expulsive force from the internal opening and canal to the abdominal parietes. Advantage in being able to approach the

constriction either from without or from within. Avoidance of the necessity for traction on the sac or its contents. Ample room for treatment in diseased conditions of the sac or contents.

CANCER OF THE BREAST.

CHEYNE (*Lancet*, Aug. 13, 1892) insists that in all cases there should be free removal of the skin, especially over the tumor—very free indeed if the skin is actually the seat of disease; complete removal of the breast, bearing in mind its great extent; removal of the pectoral fascia coextensive with the breast and right on to the sternum along with a thin layer of the muscle behind the tumor and the main part of the breast; removal of the fascia over the serratus magnus in the axillary region, and of all glands and fat from the axilla by a clean dissection; if the tumor is adherent to the pectoralis, removal of large strips of that muscle. It should always be borne in mind that the object of the operation is not simply to remove the tumor, but to rid the patient of her disease, and that can only be done by removing, as far as possible, all of the probable seats of recurrence.—*N. Y. Medical Journal*.

INTENSIFICATION OF THE CHOLAGOGUE PROPERTIES OF CALOMEL.

Dr. R. MANSELL-JONES (Brighton) writes: With reference to the remarks made in a recent number of the *British Medical Journal* as to the fact that the cholagogue and purgative properties of calomel are greatly increased by its combination with minute doses of the perchloride of mercury, I may state that salicylate of soda has a similar effect, and great care should be taken not to administer these medicines in full doses, within several hours of each other, as their action is likely to prove extremely violent. On the other hand, a grain or two of calomel given at bedtime, and followed in the morning by a draught containing about 10 grains

of the salicylate, will be found highly beneficial in torpid liver.—*British Medical Journal*.

DR. HARE'S CHLOROFORM INVESTIGATION.

Dr. HOBART A. HARE, of Philadelphia, writes to us, that, having been asked to undertake a research at the expense of the Government of His Highness, the Nizam of Hyderabad, India, with the object of reconciling, if possible, the conflicting views concerning the action of chloroform, he is anxious to receive from American physicians and surgeons records of any cases where it was noticed that the heart stopped beating *before* respiration, or respiration stopped *before* the heart. Notes concerning any such cases will be considered strictly confidential, provided the reporter states his desire that his name shall not be mentioned in the report of the research when it is finished. Otherwise due credit will be given for any information received.—*N. Y. Medical Journal*.

PRURITIS.

La Medecine Moderne recommends menthol and acetic acid for pruritis.

R	Menthol	dr. i.
	Alcoholis	„ vijss.
	Aquæ destillatæ	„ xv.
	Acidi acetici	oz. vj.
	Ad q. s.	

Misce et fiat lotio.

*To be applied twice daily.

TREATMENT OF SMALL-POX BY DARKNESS.

GALLAVARDIN, as the result of his experience since 1876, finds "that if patients suffering from small-pox are uninterruptedly kept in a room from which all solar light is excluded, the disease presents no period of suppuration, and that in consequence the subsequent scarring is infinitesimal." The inception of this "experience" must have been based upon the old superstitious practice which once prevailed so intensely that small-pox patients were shut up in darkness, and their beds surrounded with red

curtains during the whole of their illness. The red curtains are now pretty nearly given up, but the darkness still appears to be credited with some mysterious curative virtue. A more injurious practice really could not be maintained than that of darkness in a sick-room. It is not only that dirt and disorder are results of darkness—a great remedy is lost. Sunlight is the remedy lost, and the loss is momentous. Sunlight diffused through a room warms and clarifies the air; it has a direct influence on the minute organic poisons—a distinctive influence which is most precious—and it has a cheerful effect on the mind. The sick should never be gloomy, and in the presence of the light the shadows of gloom fly away. Happily, the hospital ward, notwithstanding its many defects—and it has many—is even here in China, so far favoured that it is blessed with the light of the sun whenever the sun shines. In private practice, the same remedy ought to be extended to the patients of the households, and the first words of the physician or surgeon on entering the dark sick-room should be the dying words of Goethe: “More light! more light!”—(Ed.)

THE DOSE OF SANTONIN FOR CHILDREN.

Dr. DEMME considers the smallest efficient and perfectly safe dose of santonin to be from one-sixth to half a grain, or from one to one and a half grain a day. As a vermifuge he always associates santonin with calomel.—*Revue des Maladies de l'Enfance*.

A PRACTICAL STERILIZATION APPARATUS FOR SURGICAL AND BACTERIOLOGICAL USES.

In the *Centralblatt für Chirurgie*, No. 39, S. 788, KRONACHER gives a description of a sterilizing apparatus for instruments, etc. It is made of copper, and has for its object the use of both moist and dry sterilization. The instruments are placed first on a removable tray and immersed in the hot soda solution and boiled. The vessel containing

the hot solution is then removed, and the articles to be sterilized replaced in the apparatus and subjected as long as desired to dry heat.—*University Medical Magazine*, January, 1893.

THE SITTING POSTURE DURING DELIVERY.

Dr. J. T. WEBSTER, in the *Medical Brief*, gives the following reasons for preferring the sitting or squatting position to the dorsal decubitus during labor: 1. Because the law of gravitation naturally assists in the expulsion of the fœtus. 2. Because the leaning of the body forward, and pressing of the abdominal muscles against the thighs, assist materially the expulsion during contractions of womb. 3. It relieves the colon, lumbar nerves, and perineum of the weight of the child. 4. It avoids the continual getting up to evacuate bowels or empty the bladder. 5. It prevents the laceration of the perineum by relieving it of the downward pressure against it. He especially observed that as soon as cases assumed this position they were satisfied, and were greatly relieved of all the unnecessary pain and discomfort of labor.

RECTAL FEEDING

May be carried on by means of a mixture of two eggs, twenty grains of pepsin, ten grains of chloride of sodium, and six ounces of water (*Detroit Emergency Hospital Report*). This mixture should be slightly warmed, thoroughly agitated, and then gently introduced into the bowels by means of a syringe. To facilitate the entrance of the fluid into the intestines, it is well to put the patient in a position with the hips much elevated above the head; either the knee-chest position, or with two or three pillows resting beneath the hips.

TOBACCO SMOKE.

A large number of investigations have been made by Dr. TASSINARI on the influence of tobacco smoke on the germs of cholera, anthrax and pneumonia. His method of

research was to line the interior of hollow balls with gelatine containing the germs of the diseases named; tobacco smoke was then passed through these globes for from ten to thirty minutes. The surprising fact was then established that at the expiration of that time the bacilli of true Asiatic cholera and pneumonia were completely destroyed, whatever the kind of tobacco employed for the purpose. The gelatine was absolutely sterilized by the tobacco smoke. The anthrax bacillus was more resistant, however, while the bacillus of typhoid was scarcely acted on at all.—*Medical Record*.

PERIODATES, A NEW REMEDY FOR CHOLERA.

According to the *Munch. N. N.*, the name Periodates is applied to an alleged mineral substance long known to the learned world, which is said to possess the wonderful property of destroying not only the comma bacilli, but the poison (toxin) which they produce. The experiments made with the remedy in several cholera barracks of Hamburg are claimed to have yielded surprisingly favorable results. (???)—*Pharm. Post*, p. 1,209, Nov. 13, 1892.

THE HEALING OF WOUNDS BY FIRST INTENTION THROUGH THE USE OF SALICYLATE OF SODIUM.

Dr. J. T. HALL of Chicago writing in the *International Journal of Surgery* after recounting several very successful cases says: "I use from 10 grains to 2 drachms, each, of pure, salicylic acid and bicarbonate of sodium to the ounce of water, reducing the strength as the wound heals, always applying it either with gauze or three or four thicknesses of muslin, and keeping the wound moist with the solution until closed. I found with this, as with other dressings, that they should not be used with cotton, as there is in the process of repair a constant waste being thrown off which should not be retarded or confined by the use of cotton."

Suture of the lung has been carried out by Dr. GUERMONPREZ in a man of eighteen, whose pleura had been opened for a pyoneumothorax, and had been followed by a persistent bronchopleural fistula. Portions of six ribs were removed and the orifice of the fistula was sutured with catgut. The patient made a slow recovery, but was finally able to resume work.—*Med. Record*.

TO LANCE A SWOLLEN TONSIL.

Do not try to get round the anterior pillar of the fauces, but go straight back through the soft palate, and no effort on your part can possibly bring the knife into any relation at all with the carotid vessels. Open the upper part of the tonsil.—CHRISTOPHER HEATH, M.D., in *International Clinics*.

COCAINE AS A SURGICAL ANÆSTHETIC.

GAERYSZEWSKI has employed cocaine anaesthesia in the clinic of Professor RYDYGIER in several hundred cases, and not only in cases of minor operations, but also in those of herniotomy, exploratory abdominal section, extirpation of glands, certain operations on bones, etc. The author uses a 2.5-per-cent. solution, injecting up to 0.05 gramme ($\frac{1}{4}$ grain) of the alkaloid when operating on limbs, but never exceeding 0.02 gramme ($\frac{1}{8}$ grain) in operations about the head. Even operations on bones can be made totally painless by means of these injections. Cocaine anaesthesia offers the advantage over chloroform narcosis in that the patient's consciousness is left intact, and its use is without danger, provided, of course, the procedure is carried out by experienced and competent hands.—*Gazeta lekarska*, 1892. *Universal Medical Journal*.

HYPNOTIC EFFECT OF WARM BANDAGES.

Warm baths, as is well known, produce a calming effect, and tend to bring sleep, and ALLDORFER has attempted to apply such a method in patients where a sedative effect is desired, and yet where a bath is inapplicable (*Jour. de Med.*) His method

consists in wrapping the lumbar region and belly with linen cloths soaked in warm water, and then covering them with oiled silk or rubber cloth, so as to prevent evaporation, while the whole is kept in place and loss of heat prevented by a flannel cloth. This procedure is of ready performance, and the author says that by this simple means he has obtained the most astonishing results in the treatment of insomnia. By dilating the large vessels of the intestinal tract, by the warmth applied, a condition of anæmia of the brain is produced, favoring sleep. These large intestinal vessels have very properly been termed the waste-gates of the circulatory system.—*Med. Rev. Toledo Compend.*

—
EPIDEMIOLOGICAL SOCIETY.

J. F. PAYNE, M.D., F.R.C.P., President, in the Chair.

Wednesday, January 18th, 1893.

EPIDEMIC OF DROPSY.

A paper was read by Dr. KENNETH MCLEOD on a remarkable epidemic of "dropsy" which prevailed in the cold seasons from 1877 to 1880, and in several parts of Sylhet and Assam in that of 1878-9, as well as in Mauritius from November, 1878, to June, 1879, bringing together the facts and the different views put forward as to its nature and causation under the heads of (a) the persons attacked (b) their environments, and (c) the origin and diffusion of the disease, and concluding from these conditions that (1) it was not due to cold and damp, malaria, insanitary surroundings, deficient food, anæmia, or any other constitutional causes; (2) it was rather epidemic than endemic; (3) the cause of its origin in Calcutta was obscure, but it spread thence and elsewhere solely by human intercourse,

though (4) its diffusion was slow and influenced by seasonal and other conditions. After quoting the opinion of CHEVERS, FAYRER, CORNISH, MOORE, and others that it was not a form of beri-beri, although that name had been applied to a number of diseases essentially different one from the other in their etiology and pathology, and agreeing only in the presence of dropsy, he suggested the designation of "epidemic dropsy," and gave the following definition: "A specific disease marked by the sudden appearance of general anasarca, mostly preceded by fever, vomiting, and diarrhoea, and accompanied by a rash, mild remittent fever, and disorder of the bowels; urine varying much, but rarely albuminous, and never suppressed; frequently attended by pains in the limbs and almost always by dyspnœa, marked and progressive anæmia being a constant symptom. In the latter stages pulmonary œdema and pleural and pericardial effusion were frequent. The mortality varied from 2 to 40 per cent., according to circumstances, death from lung or heart complications occurring at any period, and often suddenly. The duration of the disease was from three to six weeks. The disease was communicable by personal intercourse and conveyed by human agency, but its diffusion was feeble and greatly modified, and limited by seasonal and climatic conditions."

Sir W. MOORE, Dr. MANSON, and the President took part in the discussion, Dr. MANSON, who had seen many cases of the disease, maintaining that its occurrence in the cool season only, the presence of anasarca and the absence of peripheral neuritis, sufficiently distinguished it from beri-beri whilst the President saw no reason to doubt its malarial or telluric origin.



NOTES AND ITEMS.

PASTEUR's seventieth birthday was celebrated on the 27th December with remarkable honours. What would his father, a humble tanner of Artois have said, had he lived to have seen the memorial tablet, erected in his white house bearing these words:—

Ici est né Louis Pasteur, le 27 Déc. 1822.

A writer in the Encyclopedia Britannica, signing himself W. D., reminds us that even the purely critical portion of PASTEUR's work would be enough to immortalize his name. To be immortal, as RENAN described immortality, is to work at an immortal object, as science is, or at whatever is true and good and beautiful. These are destined to exist as long as the human race, and are everywhere surprising us by their presence. Science may never entirely succeed in lifting the Isis veil (even PASTEUR, "Prince of Science," failed in some of his most cherished attempts); but to have done one's duty, to have done well, to have worked until the close of the day, will afford us if not a consciousness of great achievement, at least a title to fellowship with the great.

The Hon. Treasurer begs to draw attention to the election of Dr. GILLISON of Hankow, to the office of the Treasurership of the Association, and that all moneys must now be made over to him.

THE CHINESE IN THE UNITED STATES.

The number of Chinese in the United States is probably less than 120,000 at the present time. Of course the great majority of these are to be found on the Pacific Coast. The census of 1890 gives the number in California as 71,681. Large numbers,

also, are to be found in Oregon, Washington, Idaho, Nevada and Wyoming.—*Es.*

A MISSIONARY MEDICAL COLLEGE.

The Board of Regents of the State University have recently granted, conditionally, a charter providing for the organization of a "Missionary Medical College" in this city. The proposed institution is to be under the auspices of the International Medical Missionary Society. This Society has headquarters on East Forty-fifth Street, where lectures have been given for several years. The Society supports six dispensaries in New York and two in Brooklyn, under the general supervision of a medical director.

A few years ago this Society attempted to secure a charter from the State Legislature enabling it to teach medicine and grant diplomas. The bill was so loosely drawn, or at least made such slight demands on those wanting a medical diploma, that it was strongly opposed by the Legislative Committee of the State Medical Society, and its passage prevented just in time. We are told now that it was "withdrawn" by its backers, but our impression obtained at the time was that it was beaten out of sight. Under the new charter the provisions or conditions which may prevent the new college from ever becoming a diploma-mill seem reasonably good. These conditions are:—

"1. No students are to be received except those pledged to do missionary work.

"2. The candidate must present either a certificate of admission to a college approved by the Board of Regents, or a certificate of graduation from an approved high school, or he may be admitted without these certificates by passing examinations under

the Board of Regents and securing fifty counts. The requirement for other medical schools is only sixteen counts.

"3. The prescribed course of study is to cover four years of nine months each.

"4. The graduates of this school must pass the same examinations under the State Board as the graduates of the other regular schools in order to receive certificates of graduation."

The objects of the school are praiseworthy ; whether its organization is wise or necessary may well be questioned. It is a difficult and expensive thing to educate medical students properly, and no new college can do it without much labor. It would be a mistake to think that a poor doctor may be excused because he is a good Christian. The new college will bear watching.—*Medical Record*, N. Y.

But still with honest purpose toil we on :
And if our steps be upright, straight, and true,

Far in the east a golden light shall dawn,
And the bright smile of God come bursting through.

WILL CARLETON.

IS WOMAN INFERIOR TO MAN?

DELAUNEY thinks she is, and with some fear and trepidation we reproduce a summary of his celebrated article on the question.

Woman more prognathous than man. Muscular system less developed. Her foot flatter and less arched. Average difference in height, four and one-third inches. Voice an octave higher. In animals, female voice always higher. Respiratory capacity of woman a pint less than that of man of same size. Temperature higher in man. He eats more. He absorbs more oxygen and exhales more carbonic acid. Pressure of blood higher in man, though pulse less frequent. A million more red globules in a cubic millimetre of man's blood. Males of birds and mammals nearly always superior to females. In domestic animals, males

always larger. Skull of man more capacious, in the proportion of one hundred to eighty-five. Brain heavier (one hundred to ninety) even in men and women of same weight. The frontal lobes, the seat of highest intellectual faculties, less developed in woman. Girls grow faster than boys till they are seventeen, after that the man keeps on growing, the woman stands still. Woman more precocious, physically and intellectually, than man ; a characteristic of inferiority. Woman wanting in originality. Although incomparably more women than men study music, women furnish no composers. So in painting, science, philosophy, etc. Not man's equal where profound thought, reason, imagination are concerned. Compare lists of twenty men and twenty women most distinguished in poetry, painting, science, belles lettres, etc. Woman an imitator only. Never invented anything. In the evolution of tastes and ideas, woman marches a century behind man.

A fine specimen of the egg of *Aepyornis*, the extinct giant bird of Madagascar, and obtained from Southern Madagascar, was exhibited at a recent meeting of the Zoological Society of London. It will be remembered that this egg is about 13 inches long, and of the capacity of 150 hen's eggs.

A curious case occurred recently in the out-patient department of one of the London hospitals. A woman attending for fibrous stricture of the rectum said she had swallowed a sovereign and a half about a fortnight before, "when larking." The surgeon in attendance examined the rectum and removed three sovereigns from the stricture with a pair of forceps at one grip.—*Medical Record*, N. Y.

The Highest Court of Germany has decided that legal human life dates from the beginning of labor, and that its destruction before full term is not murder. This decision opens a wide avenue of criminal possibilities.—*Ib.*

Dr. B. C. ATTERBURY of China, formerly President of the Society (International Medical Missionary), was then introduced to the meeting, and received a warm welcome. With the earnestness born of experience, he told of the value of Medical Mission work as seen by him in China, and related some thrilling instances of the great success attending this line of effort. He congratulated the Society upon the progress it was making, as evidenced by the present meeting, and told how this fact had been impressed upon him during his recent journey home. Whilst passing through China, he had met no less than four of the students of the Society, all fully qualified men, in different towns, where they were doing good service.—*Medical Missionary Record*.

The corner stone of the Protestant Episcopal Cathedral in New York City was laid December 27th with ceremonies that were most beautiful and impressive. The exercises were held in a great tent, cruciform in its design. There were seats only for one thousand persons, who were admitted by card—a comparatively small portion of the great company who would have been glad to share in the ceremony. The choir, one hundred in number, furnished music of the highest order. After the opening exercises, Dr. THOMAS ROBINSON HARRIS read the list of articles contained in the box deposited in the corner stone. They included a number of periodicals and a copy of the new Book of Common Prayer. The box was then closed and placed in the receptacle prepared for it with the customary service. The address was given by Bishop DOANE, of Albany, after which the exercises closed just as the setting sun threw a brilliant glow across the scene. The exercises throughout were most impressive in their solemn and stately simplicity.—*Ext. N. Y. Independent*.

The China Inland Mission reports 123 additions to its force the past year, making

the whole number now engaged in that work 512, occupying 94 different points.—*The Missionary Reporter*.

Miss HU HING-ENG of Foochow, China, is expected in Philadelphia to resume her medical studies, this month. She had previously prosecuted her work at the College for three years, but on account of her own and her father's health she was obliged to return to China temporarily.—*Medical Missionary Record*.

On the occasion of the Dowager Empress birthday next year the *Shanghai Mercury* informs us, "that forty li of streets will be decorated, and for this purpose 1,200,000 pieces of red silk each about forty feet in length have been ordered from the government silk looms of Hangchow, Soochow and Nanking;" it will be noted that if these feet are reduced, they total some 910 miles.

We would remind our correspondents that as the system of subscription to the Shanghai Local Post Office ceases on the 31st March it will be necessary for them to provide themselves with stamps, and stamp all their mail matter—otherwise postage which will be collected in Shanghai, will have a very demoralizing effect upon us in course of time.

Mr. LEWIS who we hope soon to welcome back to China writes to *The Messenger* from Crieff in Scotland: "This is a most charming spot and to-day is the most perfect I have ever seen. The sky is azure blue and the mountains stand out against it clearly cut. The air is exhilarating in the highest degree, and nature looks at her best. Crieff, I think, is almost a perfect place for the jaded worker from China to come to. It really ought to be better known there. I am very much better than a year ago. Still Dr. MAXWELL, when I saw him in Banffshire lately, mid August, was of opinion that I ought not to leave home till the middle of

next year." This was written September 21st. Later he writes that he will be in London in October and will then consult physicians.

It is scarcely a figure of speech to say that "woman is the corner-stone of heathenism." Notwithstanding their degradation, heathen mothers have immense power over their sons. This fear of a mother's curse prevents many Chinamen from listening to the claims of the Gospel. An intelligent Hindu exclaims: "It is the women who maintain the system of Hinduism." Christ and His Gospel are the only levers that have raised the nations. But in all the Orient only a woman's hand can adjust these levers to the corner-stone.—*Med. Missionary Record*.

One of the most impressive services held on New Year's Day was that in St. Paul's Cathedral, London. About 2,000 of the unemployed in that city, with all the Tower Hill leaders, marched up the aisles and took three times the number of seats provided for them. Canon HOLLAND preached a sermon full of sympathy for them, recognizing to the full the need of social reforms to relieve the suffering. He was listened to attentively. At the close the men formed in line outside the Cathedral, gave repeated cheers for the Canon and then went home to Camberwell, singing the "Marseillaise" and "The Starving Poor of England."—*The Independent*, N. Y.

Mrs. SNOOPER: "Isn't that a very peculiar perfume that Mrs. HAMBURGER has commenced to use lately?" Mrs. SKIDMORE: "It's carbolic acid. She wants to make people believe she's been to Europe."—*Life*.

The medical college at Nagasaki, Japan, now occupies the recently completed building. There is an average attendance of three hundred students, with dormitory accommodations. Museums and laboratories

are well arranged for work. A number of microscopic anatomical preparations are in readiness for the Columbian Exposition at Chicago. At the rear of the college is a spacious hospital, with few occupants at present, for this is a good year (no cholera) for Japan.—*Medical Record*, N. Y.

A correspondent to a home paper writes:—"The following personal anecdote about the late Sir RICHARD OWEN may interest your readers, containing, as it does, a curious and but little recognised fact. Many years ago, standing on the kerbstone in Pall Mall with the learned professor, he laughingly told me that I could not tell which was my right hand. I immediately held out my right hand. But he objected. Remarking that he had not said that I could not show him my right hand or extend him my right hand, but that I could not tell him which was my right hand—that is, that I could not describe it in words, so that one who had never heard of the distinction, we make between the right hand and the left would be able to find it. I thought that that would be easy enough also, until I thought it over, and then I had to give it up.

"Said the anatomist: 'There are plenty of criteria within the body which define its place, such as the heart, the liver, and the duodenum; but on the outside of a perfectly formed human being there is nothing to distinguish the right hand from the left, and no one can describe it in words so that an ignorant person can find it. If people were ambidexterous, and were not taught from childhood to use one of their hands more than the other, it would be almost impossible to know which is which. I often think of this when I hear anyone say to some one whom he wishes to stigmatise as a fool, that 'he can't tell his right hand from his left,' as I do also when I read what God said to Jonah about Nineveh, in which were 'more than six score thousand persons that cannot discern between their right hand and their left hand.'"

PHILIP HENRY AND MARRIAGE.

When PHILIP HENRY was settled at Worthenbury, he sought the hand of the only daughter and heiress of Mr. MATHEWS, of Broad Oak. The father demurred, saying that though Mr. HENRY was an excellent preacher and a gentleman, yet he did not know whence he came. "True," said the daughter, "but I know where he is going and I should like to go with him." Mr. HENRY records in his diary, long after, the happiness of the union, which was shortly consummated: "April 26th, 1680. This day we have been married twenty years, in which time we have received of the Lord 20,000 mercies—to God be glory!" Sometimes he writes: "We have been so long married, and never reconciled, *i.e.*, there never was any occasion for it." His advice to his children with respect to their marriage was: "Please God, and please yourselves, and you will please me," and his usual compliment to his newly-married friends: "Others wish you all happiness I wish you all holiness, and then there is no doubt but you will have all happiness."—*The Bombay Guardian*.

It is calculated that the Bible has now been translated into so many tongues that it is accessible to fully 1,000,000,000 souls. This leaves nearly 500 millions unreached, many of whom, however, cannot read at all and have no written language.—*Ex.*

CEMENT FOR MORTARS.

J. R.—Melt together equal parts of gutta-percha and shellac in an iron vessel, on a sand bath. Apply a thin coat of the mass upon the strongly heated fractured surface; press forcibly together, and allow to cool.—*Bulletin of Pharmacy*.

SOME CRUEL THINGS FOR ANTI-VIVISECTIONISTS TO LOOK AFTER.

Castrating horses, pigs, sheep, dogs, cats, etc.; docking horses' tails; hunting foxes,

hares, rabbits; hooking fish for sport; shooting pigeons at matches; poisoning rats with strychnine and arsenic; fattening geese for *pâte de foie gras*; trapping rabbits.—*Ex.*

We quite agree with Mr. W. H. LLEWELYN, the well-known anti-vivisectionist, that the present Act for the regulation of experiments should be amended. The licence as at present issued prohibits torture; but certificates can also be obtained which permit it. The right of vivisection, if granted at all, as we think it must be, should be so jealously guarded that no animal should suffer but with reasonable probability of an ultimate good. No certificate should be granted but to physiological specialists of recognised eminence.

A NEW USE FOR CATS.

Cats are being extensively used in New Zealand for the destruction of rabbits. The owners of one estate are so pleased with the efficacy of the new "cure" that they have given an order for five hundred cats. It is not, however, understood, the *British Medical Journal* reports, that the anti-vivisectionists see any reason to interfere, seeing that only a money profit, and not the increase of knowledge or the relief of suffering, is in view.

SEA-SICKNESS.

The old method of treating sea-sickness is again recommended by Dr. AMES BRUNTON in the *British Medical Journal*. A leather strap is strapped tightly around the lower part of the thorax and epigastrium and is kept on until the traveller has gained his sea-legs. It is sometimes better to add a pad over the epigastrium. In commenting upon this, the *Medical Record* inquires why it is that our sweet sisters, whose dear little epigastria are tightly and often even painfully pressed by the cruel corset, should suffer so universally from the most distressing of ills.

THE ENGLISH VIEW OF IT.

Quarantine may be defined as an elaborate system of leakiness; impossible if it be complete, because implying isolation and arrest of intercourse; useless and dangerous if incomplete, because inviting a false reliance and offering a false security. Medical inspection, with the powers of detention, was a more real precaution and more easily made effective; but under the circumstances it was only a sieve, which would strain off the coarser majority of cases, but through whose many apertures the more subtle were already passing, and would pass.—*Medical Record*, N. Y.

THE RETIREMENT OF SIR JOSEPH LISTER.

The eminent originator of modern anti-septic surgery, having attained the age of sixty-five, has been retired from his post as lecturer on clinical surgery at Kings College Hospital, London. The rule requiring his retirement on account of age has been commented on quite freely as an unnecessarily harsh measure, for the distinguished surgeon is no less capable and active to-day than when he was invited down to London. The hospital does not altogether lose his services, for by a special act of grace LISTER will continue for a year longer to occupy his position on the attending staff.—*N. Y. Medical Journal*.

SULPHUR FUMIGATION IN CHOLERA.

Fumigation by sulphur is older than most writers state, dating back not to the last century only, but to the time of HOMER. The following passage occurs in the *Odyssey*, after the slaughter of Penelope's suitors, when their dead bodies formed a huge mass of lifeless flesh:—

"Anon yet spake the chief

To the dear nurse EURYCLEIA: Fetch me
brimstone,
Sweet'ner of taints, and fetch me fire, old
woman!

That I may fumigate the hall. . . .

And straight

She fetched him fire and brimstone, and
Odusseus
Right thoroughly fumigated everywhere,
The common hall, men's room, and all the
courts."—*Ib.*

SEARCHING FOR LIGHT FROM ANOTHER
REALM.

The lecturer on theosophy had concluded his long and able address, and stood looking at the audience. "If there is any question," he said, "that any of you would like to ask me before I sit down, I should be pleased to answer it." Amid the deep silence that followed this remark, an earnest looking man near the door rose up and said: "I'd like to know, Professor, if anybody has ever yet discovered a reliable and certain cure for warts?"—*Medical Record*, N. Y.

By the way, the prevalence of typhoid fever in the upper classes in England is one of the things which puzzles medical men. Significantly called by the poor "the dirt fever," typhoid ought to be about the last thing on earth an English gentleman or lady would be liable to. That typhoid should be rife among the aristocracy—say, of Rome—would be comprehensible. The Italians, princes and peasants, are not a particularly clean race; they do not use more water, as a rule, than is strictly necessary, and the drainage of Rome is vile. And yet in those Roman palazzi, where there are cesspools by the door, and where not unfrequently mounds of offal may be found not far from the grand staircase, typhoid is not nearly so prevalent as in the sanitary-engineered, up-to-date "stately homes of England."

We find the following in a recent number of the Oxford Magazine:—(*North-China Daily News*, March 11th.) "To-day and next Saturday (at the Indian Institute, at 5 p.m.,) Oxford has an opportunity of hearing

one of the greatest living sinologists. As a distinguished Chinese scholar recently put it, "Dr. EDKINS is to all other Europeans at present in North China as the thumb is to the fingers." His subjects are not abstruse points of philology, but rather of general interest to all whose interest lie in the direction of Comparative Religion or Mythology.

The dedication of the A. G. MAIN'S Hospital, Seventh-day Baptist Mission, Shanghai, took place last December; it was an interesting ceremony and largely attended by ladies and gentlemen, foreign and native. 'H. W. B.' writes in February Recorder:—

"Dr. ELLA F. SWINNEY gave a very clear account of the medical work of the hospital. The building had room for 40 beds, but only two of the four wards with 24 beds were to be used at present. The dispensary work had been conducted for nine years in that place and in the native city. The trips into the country, from Thursday afternoon until Monday morning, had been much appreciated by the people. These trips would now have to be discontinued, or carried on at long intervals, for the work at the hospital day and night would occupy all her (Dr. SWINNEY'S) time until reinforcements arrive.

Dr. BOONE spoke of the privilege to be acquainted with Dr. SWINNEY and to see something of her work from its beginning. He knew that she had to build up and to carry on her labors under very great difficulties, and that she had always been in straightened circumstances from lack of adequate support. He had learned to admire the Doctor for the wisdom and good judgment she had displayed and for the Christian spirit which animated her in all her work. After the guests had inspected the hospital, they partook of a collation. The buildings are well adapted for all needs. The architect, Mr. KINGSMILL, and Dr. SWINNEY, also, may be congratulated on knowing how to

accomplish so much with the limited means at their disposal."

"We understand (*North-China Daily-News* of Jan.) that Mr. WEBB, ex-Consul General of the U. S. to Manila, has been singularly fortunate in procuring large subscriptions for the mission to convert America to Islam. His immediate object is to have a minimum of Rs. 80,000 for the first three years of the mission in the States. Mr. WEBB has full confidence in the eventual success of the arduous undertaking to convert America to the Mahomedan faith." Mr. WEBB recently remarked, say an exchange, that "The Western world is waiting to be Islamized." Mr. WEBB is doubtless very much in earnest and we would fain encourage him, were we able. It occurs to us that since the matter of the Rupee has entered so evidently into his calculations, has he, equally considered the depreciation of silver? Mr. WEBB'S project has a charming air of *insouciance* about it exactly in keeping with a remark recently attributed to the Cardinal Archbishop of Westminster, to the effect, that he looked forward to the Romanizing of 30,000,000 Englishmen in the not too distant future. The late Mr. SAMUEL WELLER would we think, have characterized these schemes, as 'pretty.' We however wish them all the success they merit.—ED.

Dr. PORTER writing to Dr. HODGE from Pang-chuang, Shantung, Nov. 26 says:—

"In reference to the Leper Controversy which has been inaugurated, it may be interesting to you to know that it is very infrequently seen in the North in the range of our hospital circuit. I had five cases only last year and I do not recall seeing any cases in previous years. Dr. PECK tells me that he never saw but one and that was at Dr. MACKENZIE'S hospital. I once saw a case with MACKENZIE at Tientsin. While this is true of Chihli and

the region about us, I have been told by Dr. HUNTER that he has seen "Lots of Cases" chiefly from the mountain region south of Ching-chou Fu. I have a theory that the leprosy of the north in Shantung has come from the pilgrimages to Mountain Tai where thousands of wayfarers meet, many coming from the South. Whether one could verify such a theory is uncertain. The non-contagious character of the leprosy we see might seem to militate against such an idea. But union in filth and living would make the contagion more likely.

Dr. Peck has returned and I turn over my medical work to him.

The *Shanghai Mercury* has recently given a table showing differences between values of local stock from 31st December 1891—31st December 1882; reading "Actual Loss" T's, 10,994,274.

METEOROLOGICAL NOTES. CHEFOO 1892.

Lat. 37° 35 min. 56 sec. N. and Long. 124° 22 min. 33 sec. E.

I. Temperature (*Fahrenheit*.)

Month.	Min.	Max.	Mean.	Range.
Jan.	15°	50°	30°	35°
Feb.	12°	50°	30	38
Mar.	20°	59°	35	39
April	34°	84°	52	50
May	47°	89°	67	42
June	58°	102°	76	44
July	67°	97°	82	30
Aug.	67°	99°	79	32
Sept.	48°	90°	71	42
Oct.	40°	86°	64	46
Nov.	26°	76°	48	50
Dec.	17°	57°	35	40

The highest point reached by the thermometer (102°) was on June 24, but the same day gave us a minimum of 72°. The second highest point reached was on Aug. 14 (99°), yet the minimum for that day was 76°.

The highest minimum (82°) occurred on July 7. The hottest week of the year was from July 2 to 8, the mean being 85°.

II. Rainfall.

	Inches.
In Jan. Rain fell on 7 days giving a total of 0.58	
" Feb. " " 1 " " " 0.22	
" Mar. " " 6 " " " 0.54	
" April " " 5 " " " 2.14	
" May " " 4 " " " 0.44	
" June " " 4 " " " 0.46	
" July " " 10 " " " 5.05	
" Aug. " " 17 " " " 11.97	
" Sept. " " 4 " " " 2.34	
" Oct. " " 8 " " " 2.75	
" Nov. " " 8 " " " 4.23	
" Dec. " " 8 " " " 1.81	
<u>82</u>	<u>32.53</u>

From this table it will be seen that the fall of rain for the first half year, only amounted to 4.38 inches, and for the second half year as much as 28.15 inches.

The average fall was 0.40 in. per rainy day. The heaviest rainfall of the year—3.18 in.—occurred on Aug. 22.

Snow fell as late as April 11. The first snow after the summer fell on Nov. 24, but the first frost was noticed on Nov. 11.

The heaviest snowfall of the year (equivalent to 1.06 in. of rain), occurring on Dec. 11, was quite exceptional.

III. Thunderstorms.

	Inches.
1 May 5 the accompanying Rainfall being 0.14	
2 " 14 " " 0.21	
3 June 13 " " 0.26	
4 " 14 " " 0.15	
5 July 29 " " 0.81	
6 Aug. 10 " " 1.15	
7 " 11 " " 0.48	
8 " 14 " " 0.27	
9 " 16 " " 0.94	
10 " 18 " " 0.98	
11 " 20 " " 2.94	
12 Oct. 1 " " 0.09	
13 " 3 " " 0.26	
14 " 20 " " 0.28	
15 " 27 " " 0.33	
16 " 28 " " 1.61	
<u>10.90</u>	

The average fall was 0.68 in. per stormy day. The last storm was accompanied with very large hail-stones, many of the largest of them having a diameter of $\frac{3}{4}$ inch.

HORACE A. RANDLE.

The death took place January 23rd of Dr. WILLIAM PRICE, the self-styled "Arch-druid of Wales." Dr. PRICE, who had attained the age of 92, was one of the most singular personalities in the Principality. He qualified as a medical practitioner as far back as 1821, and took an active part in the Chartist movement. On account of his extreme opinions, a warrant was issued for his arrest by the Government of the day, and a large reward was offered for his capture. He eluded his pursuers disguised as a woman, and succeeded in escaping to France. Landing at Havre, he proceeded thence to Paris, where he was introduced to the reigning monarch. After his return from exile PRICE became notorious for his litigious propensities, and squandered a large fortune in frivolous actions at law. In recent years, the occurrence which brought him most prominently into public notice was the cremating of his infant son on the summit of a hill on the Caerlaw fields. At the ensuing assizes at Cardiff he was indicted for unlawfully cremating the body of the child. The case was tried, and in the end Dr. PRICE was acquitted. He then entered an action against the police for false imprisonment, and recovered a farthing damages, and afterwards disturbed his neighbours' tranquillity by cremating his dead oxen. He is survived by two young children, one of whom, the boy, bears the name of Jesus Christ. Dr. PRICE attracted considerable attention by his quaint costume. On his head he wore a whole fox skin, the head, ears, and tail included. His trousers were of a light green colour lined with scarlet at the bottom of the legs and scalloped at the ends. His vest was scarlet, with golden buttons, and he wore a light cloak.

Dr. PRICE left strict injunctions that his body was to be cremated.

We take the following extract from the *Celestial Empire* for those who are interested in such matters. The figures apply to the war footing establishment of the countries mentioned:—

France	...	...	4,350,000
Russia	...	...	4,000,000
			8,350,000
Germany	...	...	5,000,000
Austria and Hungary	...	...	1,900,000
Italy	...	...	2,236,000
(Triple Alliance)	...		9,136,000

1. There are two Chinese girls and three Chinese young men studying medicine in the University of Michigan. The girls have taken the names of Mary Stone and Ada Kahn. *Missionary Review*. (Contributed by Dr. Whitney 'at home.')

2. The Hawaiian Islands have 15,300 Chinese, 20,000 Japanese and 12,000 Portuguese.

3. The great utility of medical missions in Africa and India, as well as in China, is frequently referred to. The last Decennial Missionary Conference in Bombay reaffirmed the need of more medical missionaries in India.

4. In India there are 97 European and Eurasian medical missionaries and 168 native Christians caring for the sick, and 166 hospitals and dispensaries. This branch of missionary toil will doubtless develop as Christians realize how beneficent and mighty a helper medical work is for the evangelization of the people.—*Harvest Field*—*Ibid*.

5. The Church Missionary Society has 20 medical missions—some with branch hospitals and dispensaries, 6 are in China, 5 each in India and Africa, and 1 each in Palestine, Persia, and British Columbia (one not named).—*Bombay Guardian*.

6. Evangelism in the Turkish Empire has founded hospitals and orphanages, and has done more than anything else to bring in an enlightened medical practice, and drive old systems to the wall and make them a laughing-stock.—Rev. C. C. TRACY.—*Ibid.*

7. It is reported, from the *Medical Review*, that not a single case of small-pox occurred in the British army in 1890. This is a strong argument in favour of vaccination and re-vaccination of which China is one of the most needy countries in the world.—*Ibid.*

8. Vitality of the typhoid bacillus, as condensed from experiments reported by Karliuki, 1891: 1. The typhoid bacillus lives only three months when buried in the earth. 2. The typical bacillus mixed with excrement does not live as long as in pure cultures, owing to the action of microbes native to excreta. 3. Water added to earth diminishes the vitality of microbes. 4. The typical bacillus just beneath the surface resists the action of other microbes more energetically than at a greater depth. 5. The vitality of the bacillus is lessened on the surface of the ground owing to the influence of rain and sunshine. 6. There is great elevation of temperature during the putrefaction of organs from typhoid fever cadavers, the bacillus being found more than three months.—*Ibid.*

ARRIVALS.

At Shanghai, on 26th November, Dr. PATTERSON for English Baptist Mission.

At Shanghai, 10th December, Dr. GILLISON (returned); on the same date, Dr. BESSIE HARRIS, equally for the London Mission,

Hankow; and Dr. WALTON for Chungking.

At Hongkong, on 6th February, Dr. and Mrs. W. MURRAY CAIRNS for the English Presbyterian Mission, Formosa.

At Shanghai, on 26th February, Miss A. LARSON, M.D. for Presbyterian Mission, Shantung.

At Shanghai, Miss R. GIFFORD, M.D., for Canadian Methodist Mission, Chungking.

At Shanghai, March 13th, A. G. PARROTT, M.R.C.S. (Eng.), L.R.C.P. (Lon.) wife and two sons (returning); on the same date, Miss RUTH FARWIG, M.D. for Singan Fu, Shensi.

BIRTHS.

ON 31st October 1892, the wife of F. W. MARSHALL, L.R.C.P. and S.E., Laoling, Shantung, of a daughter.

ON 14th November, the wife of Dr. STEVENSON, Ch'entu, of twin daughters.

ON 24th January 1893, the wife of Dr. CANRIGHT, of a son.

ON 27th January, the wife of Dr. BOONE, of a daughter.

MARRIAGE.

ON 13th March, 1893, at the Union Church, Hongkong, by the Rev. G. H. BRADFELD, PHILIP B. COUSLAND, M.B., C.M., Swatow, to SUSAN, daughter of the Rev. W. S. HARRINGTON, D.D., Portland, Oregon.

DEPARTURES.

FROM Rajaburee, Siam, January, Dr. JAS. B. THOMSON for the United States.

FROM Shanghai, 11th February, Miss SUGDEN of Wesleyan Mission, Hankow, for England.

Dr. The Medical Missionary Association of China in Account with the Treasurer of the same. Cr.

1892.	To Balance	...	...	\$ 321	cts. 11	1892.	By Photo-lithographs, Blocks, etc. <i>" Journal ... "</i> ... \$12.84 Postage, 'Press' ... 4.79 " Office ... 3.55 " Stationery ... 2.00 " Sundries Wrappers and Wrapping ... Presby. Miss. Press a/c. for printing and reprints Nos. 3 and 4, Vol. 6 ... Balance H. & S. Bank as per Pass Book submitted ...	\$ 16	cts. 40
June 30th	" Receipts	...	...	242	91	Aug. 1st		23	18
1893.						Feb. 15th		10	20
Feb. 15th								236	40
								277	84
				\$564	02			\$564	02

Credit Balance \$277.84.

Compared with the Accounts and found correct.

S. F. SMALLEY,

St. John's College, Shanghai.

ALEXANDER LYALL,

President Medical Missionary Association.

PERCY MATHEWS, M.D.,
Hon'y. Treasurer.

1893.	ASSETS.		
Feb. 15th.	To Balance in Bank	...	\$277.84
	" Subscriptions and Advertisements owing	...	772.00
	" Association dues owing	...	320.00
	Total Assets	...	\$1,369.84

The China Medical Missionary Journal.

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No. 2.

Original Communications.

[No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editor on the first day of the month preceding that in which they are expected to appear. A complimentary edition of a dozen reprints of his article will be furnished each contributor should he so desire. Any number of reprints may be had at reasonable rates if a *written* order for the same accompany the paper.]

SURGERY IN CHINA.

(Continued.)

By JOHN C. THOMSON, M.A., M.D., *Edin., Alice Memorial Hospital, Hongkong.*

II.—SURGICAL CHARACTERISTICS OF THE CHINESE.

Passing now to some consideration of the characteristics of the Chinaman from the surgeon's point of view, the questions naturally suggest themselves as to how he sustains, and how he recovers from, the effects of operation or injury : in both of which respects my experience leads to the belief that he has distinctly an advantage over the average native of Western lands.

Fortitude under Operation.

The Chinaman's fortitude under the surgeon's knife has been subject of remark ever since the surgeons of the Honourable East India Company first began to relieve surgical conditions with which at their stations in China they were brought into contact, and continues to excite admiration now that medical missions are carrying Western surgery into many regions of the Chinese empire. This trait is of course less noticeable now than in the days anterior to the age of chloroform, but even now it is frequently put to the test in circumstances where surgeons in isolated situations are compelled to undertake operations unaided, or where otherwise the exhibition of chloroform is contraindicated, and in the minor operations of surgery. When so tested, the Chinaman will endure without flinching a degree of pain that to the more highly developed nervous system of the Westerner would be well-nigh impossible. Most of the numerous entropion operations in the Alice Memorial Hospital, for example, are performed without the use of any anæsthetic whatever, and one usually sees the minute manipulations involved endured throughout without the quiver of a single muscle, on the part of women as well as men.

To the Chinaman, indeed, with his lack of education to the knife, the thought of cutting is repellant in the extreme, and I have many a time seen a stalwart man burst into tears at the bare proposal of incision of an abscess, but once his mind is made up to operation the case is as I have stated it, and he far surpasses most other nationalities in his courage and endurance.

Recuperative Power.

The remarkable recuperative power of the Chinese after surgical injuries is unanimously testified to by all who have had to deal with them, and my experience of them goes to confirm this generally received opinion.

The fact is to be discounted, that in the case of the poorer Chinese a prolonged course of low living and practical starvation has frequently added its results to the original trouble (while the native practitioners are doing their best or worst), before the case is submitted to the Western surgeon, and this materially affects the progress of many of our patients; but, *cæteris paribus*, recovery and convalescence are very much more rapid and complete in the average Chinaman than in the average Englishman.

Reasons for this difference are not entirely obvious, but the opinion may be hazarded that the simpler feeding habits of the Chinese, the rare occurrence of albuminuria or glycosuria, and their equable mental constitution form at least some of the causes of the higher vitality of their tissues. The popularly accepted notion that the Chinaman lives on rice is, indeed, very far from the truth, since even the poorest manage to add a few green vegetables and a little fish or pork to the rice which is the staple national diet; but, taken all round, the Chinaman's food is certainly more simple, and probably more nutritious, than the food of an Englishman under analogous circumstances, albeit his habit of consuming it wholesale renders him specially liable to dyspeptic troubles. His use of alcohol is also much less injurious to his tissues than is its use by a large proportion of Europeans. The native spirit, samshoo, is very extensively consumed, but it is invariably in minute quantities and never excepting with meals, intoxication being a thing practically unknown in China. Depending on this, doubtless, is the comparative rarity of albuminuria among the Chinese. Professor Grainger Stewart estimates* the presence of albuminuria in Great Britain at 24 per cent. among the sick and 10.8 per cent. among the presumably healthy, yet in the Alice Memorial Hospital the proportion of cases showing the faintest traces of albumen does not exceed 5 per cent., and glycosmia is rare in the extreme. The tranquillity of the Chinese mind is proverbial. A Chinaman is never in a hurry. Provided he be given a hope of ultimate relief, it rarely matters to him whether his stay in hospital is to extend over a week or a month, and this absence of all worry

* Clinical Lectures on Important Symptoms: on albuminuria, p. 34.

probably goes far, along with the other facts I have stated, to account for the kindly reaction of his tissues under the surgeon's knife.

To adduce illustrations of this recuperative power of the Chinese is naturally somewhat difficult, since it is in the results of treatment of ordinary accidental lesions of bones or other tissues, and in the speedy healing of operation wounds regarding which there is nothing in particular to relate, that it specially manifests itself. It may not, however, be out of place to instance one or two of the more remarkable recoveries that have been made under one's care, in circumstances that one can scarcely believe would have been other than fatal in Europeans. I shall briefly describe four such cases, taken from different regions of surgical practice :—

On June 28th 1890, an old man, Wan Huk, aged 62, came to my care from the Tung-wa (native) Hospital, suffering from a very extraordinary complication of diseases of the urinary organs. That first demanding attention was a retention of urine, the bladder being largely distended, and the patient almost in a state of collapse. On examination it was found that he had phimosis, stricture of the urethra, a stone in the bladder, and a large right scrotal abscess, communicating with the bladder over the pubic bone. By means of a small catheter the bladder was emptied of nearly two quarts of a very foul-smelling mixture of pus and urine, and washed with warm boracic lotion. On the following day the prepuce was slit up and the scrotum incised, after which for some weeks the bladder was washed out twice daily per urethram, and the patient carefully nourished, most of the urine meanwhile escaping by way of the scrotal opening. On August 9th I removed a large stone by lateral lithotomy; on August 26th performed circumcision, and fully dilated the stricture; and on October 19th had the satisfaction of seeing the old man leave the Hospital looking well, his urethra quite patent, and all his wounds perfectly healed up.

On November 28th 1890, Ng A-soo, aged 8, a school girl, fell from the roof of a four storeyed house to the ground, a distance of between sixty and seventy feet, the fall being but slightly broken by her falling on or into a basket standing on the ground. When I saw her a little later, she was comatose, and I found the skull fractured in several directions over and in front of the right parietal eminence, which was deeply depressed. I trephined and elevated the bone, and the girl regained consciousness. A fracture of the neck of the humerus (left), not noted till the following day, was treated by a pad in the axilla. Beyond a slight restlessness on the first day or two, easily checked by bromide of potassium, not a single unfavourable symptom supervened, and the patient was discharged cured on January 19th 1891. I saw her two months later, when she seemed in no sense one whit the worse for her terrible fall.

Reference has already been made to the position of Chinese obstetrics, and to the fact that one's midwifery experience is practically confined exclusively to cases requiring surgical interference, even that usually after prolonged labour. The recoveries made by such patients are often remarkable enough. Take the following :—

On February 22nd, 1890, I was called to a case of intra-uterine hydrocephalus, where labour had already been in progress for over four days, and where the patient was already almost in a collapsed condition. I momentarily feared that she would die in my hands, but managed to complete delivery, and thereafter administered restoratives and stimulants. The very next day she wished to get up and be about her household work ! By the end of a week she was moving about, seemingly as well as an ordinary Englishwoman at the close of the puerperal month ; and this in spite of the fact that her convalescence had to be accomplished in a dark, dirty, windowless cellar, opening from a narrow alley where the approach of a breath of fresh air appeared well-nigh an impossibility.

As an example of good recoveries one frequently sees made from severe hæmorrhage, the following may be instanced :—

Some months ago I had occasion to operate for extensive caries of the lower jaw, involving the whole lower margin and outer surface of the bone on the right side. Sinuses had existed for years, and all the tissues were hugely thickened and indurated, in consequence of which there was a rapid oozing of blood from the general surface all through the operation, which could not be checked by any means. Having exposed the jaw by an incision connecting the sinuses from the angle to the symphysis, I chiselled away all the carious bone, but in the meantime the loss of blood was so considerable that the patient was completely blanched, and the heart's action was extremely feeble. Yet in a few days the general tone was completely recovered, and in due time, though the bone had been so extensively denuded, perfect healing took place.

Reaction to Anæsthetics.

In close relation with the Chinaman's behaviour under and after operation is the reaction of the Chinaman's system under the influence of anæsthetics.

My Edinburgh training regarding chloroform having been fully confirmed by the results arrived at by the Hyderabad Commission, I have never used any other general anæsthetic, so that my experience of chloroform administration to the Chinese now extends over many hundreds of cases, and I have not seen one in which it has been followed by harmful results.

The Chinaman passes much more slowly under the influence of chloroform than the average Englishman, but usually without any of the excited stage

through which the latter frequently passes. Any talking or struggling is quite exceptional. He passes, too, more readily from under its influence, so that its administration requires to be more continuously maintained. He is much less liable to the nausea and vomiting that so frequently follow the use of the drug elsewhere, and I certainly have never seen it in its severer forms since coming to China. In a word, it is a safer and a more agreeable task to administer this general anæsthetic to the Chinaman than to the Englishman, but for the one drawback that the time the former takes to yield to its influence is sometimes trying to one's patience and wasteful of one's time.

As to *local anæsthetics*, the ether spray has in my hands been useless, either on account of the climate or peculiarity of the Chinese, but cocaine I find a perfect anæsthetic for purposes of minor surgery, and have not known any injurious results attend or follow its use.

Having considered the Chinaman from the point of view of operative surgery, I shall confine my further notice of his surgical characteristics to a mention of four of the occasional sequelæ of operation from which he enjoys a comparative exemption.

Erysipelas.

Erysipelas is seldom met in South China, being in some parts quite unknown, and it is also infrequent in the North, though there in warm winters it occasionally tends to become epidemic. In the Canton Hospital Report for 1874, Dr. Kerr remarks that he had up till that year seen but one case in a twenty years' very large experience. I have never seen it follow operation, and in the three or four cases I have met during the past three years, all in the face and scalp, no breach of surface could be traced as the starting point excepting in my last such case.

Tetanus.

Tetanus also is infrequent in adults, though a vast proportion of the native infant mortality is caused by the form of it known as tetanus neonatorum. I have met but a single case. A man came from the country, suffering from the effects of an explosion having carried away the right hand a week previously, in which the stump was gangrenous and dysphagia already present. I amputated high in the forearm, and tried by means of general treatment to avert the tetanic symptoms, but failed, the patient dying in a condition of general tetanus a few days later.

Hæmophilia.

Hæmophilia is extremely rare in China. One or two cases are on record,* but were the hæmorrhagic diathesis present in anything like the proportion

* Canton Hospital Report, 1879; China Medical Missionary Journal, vol. iii., p. 12.

in which it exists in other regions it must have much oftener presented itself at the many centres of surgical work now existing in the empire. I have personally met no member of the family of bleeders.

Urethral Fever.

Urethral fever is unknown in China. Venereal disease with its resultant strictures is enormously prevalent, and probably nowhere in the world is vesical calculus more common than it is in the province of Kwang-tung, off the coast of which Hongkong is situated (though curiously the disease is almost unknown elsewhere in China). Consequently in the Alice Memorial Hospital sounding and catheterization are events of daily occurrence; yet in not one single case have I observed the fever that so frequently is the concomitant of similar operations in Great Britain. The Chinaman's phlegmatic temperament seems to extend to his urethra.

It does not come within my purpose in this paper to discuss at length the *special surgical conditions met with in the Chinese*, but within a single paragraph one or two remarks on the subject may suitably find place.

The absence from China as yet of the railway, of heavy machinery, and of almost all mode of conveyance but by manual labour or by boat, makes the proportion of cases of serious accident, *e.g.* of bone lesions, very small. Tumours abound, simple tumours of all varieties predominating, sarcomata coming next in frequency, and epitheliomata being comparatively seldom met with. Hernia is common, but strangulation or other form of intestinal obstruction rarely occurs. I have already incidentally remarked on the frequency of vesical and urethral calculus in Kwang-tung province and its absence elsewhere. All forms of elephantoid disease abound, but excepting in case of the scrotal form surgery offers it small hope of relief. Deformities resulting from rickets I have seen only in one or two instances, but tubercular diseases, and especially of the hip-joint, are painfully frequent.

Finally, surgical conditions depending on chronic conjunctival inflammations are the most common of all that come under treatment.

III.—THE PROSPECTS OF WESTERN SURGICAL PRACTICE IN CHINA.

The subject of the prospects of Western surgery in China resolves itself into the two-fold question:—

(1). As to what aptitude for surgical science and practice is being shown by the Chinese themselves, since only by native agency can surgery become at all widespread;

(2). As to the reception that such native surgeons are likely to have at the hands of their countrymen.

With reference to the surgical capabilities of the Chinese, I have had opportunities of observing at their work one or two of those who have already

been trained by medical missionaries; and as Secretary of the incipient Hong-kong College of Medicine for Chinese*, I have closely observed the band of a dozen or so young men who meantime are under instruction, and eight of whom living in the Alice Memorial Hospital are continuously under my eye. As students, I find them hard-working, persevering, and for the most part able to obtain a good working grasp of the theory of any subject they have under consideration, albeit the national "memoriter" system of education predisposes them very strongly to the evils of "cramming": while in practical work they are cool, collected, careful, skilful, and fearless. We have them at all stages of the curriculum, and they seem to me well on a level, especially in practical matters, with students at similar periods of study at home; while one or two of the seniors would in my opinion easily and fully satisfy the requirements in surgery of most of the examining boards of Great Britain.

My house surgeon since I came to China three years ago has been a young man named Chung King-üe, a pupil of the late Dr. Mackenzie and a diplomate of the Viceroy's College, Tientsin, and he is as able and capable as were he a Scotch graduate with an Edinburgh training, while no man could be more conscientious in the discharge of the duties of his post. He is observant and skilful as an anæsthetist; he performs most of the minor surgery of the Hospital, and that to one's complete satisfaction; and in the treatment of the surgical emergency cases that are brought to the Hospital one has rarely to add to, or improve, much less alter, what he has already done.

My observation of these men leads me to the conviction that the Chinese are fitted to take at least a respectable place as surgeons, and that a time is coming when Chinese surgery will offer results favourably comparable with those of the West. In concluding this paper, I propose to indicate the main factors that obstruct the coming of that time, and that must be, and are being, faced by the pioneers among Chinese surgeons, of whom the Hongkong College hopes in a few months to send forth its first fully qualified instalment. These obstructing elements are certain restrictions of Chinese Penal Code, the native prejudices in favor of ancient methods, the powerful anti-foreign feeling that prevails in China, the vested interests of the native practitioners, and the influences of ancestral worship and of the prevalent notions as to the future state. Let us briefly examine these in detail.

The Chinese Penal Code.

The only reference made to the healing profession made in the Penal Code is in a section entitled, "On injuring or killing persons by an unskilful practitioner," and it is as follows:—†

* V. Alice Memorial Hospital Report for 1890, p. 17.

† Chinese Chrestomathy, p. 500.

"Whenever an unskilful practitioner, in administering medicines, or using the puncturing needle, proceeds contrary to the established forms, and thereby causes the death of a patient, the magistrate shall call in other practitioners to examine the medicine or wound; and if it appears that the injury done was unintentional, the practitioner shall then be treated according to the statute for accidental homicides, and shall not be allowed any longer to practice medicine. But if designedly he departs from the established forms, and deceives in his attempt to cure the malady, in order to obtain property, then according to its amount he shall be treated as a thief; and if death shall ensue from his mal-practice, then for having thus used medicine with intent to kill, he shall be beheaded."

In other words, so long as this law is unrepealed, while foreigners may practice under cover of their respective flags with a certain amount of impunity, any of the men whom we are training and who may commence to practise in China proper, will be liable to be hauled at any moment before the magistrates by relations of any case they may lose; and being unable to prove that they have not "designedly departed from the established forms" in course of their treatment, they will be liable at the caprice of the magistrates (who in China more than anywhere else in the world can be bought to any required decision) to be subjected to any punishment up to actual decapitation. Scarcely a prospect, it must be granted, calculated to encourage Chinese youths to adopt Western surgery as a profession!

Native Prejudices in favour of Ancient Methods.

It is not to be expected that the popular prejudices in favour of methods of treatment that have persisted during periods extending over thousands of years will be easily or speedily eradicated. Our highest hopes for the progress of surgery in China do not blind us to the fact that probably for generations still the vast majority of surgical conditions will give acupuncture and the moxa their trial before submitting themselves to Western methods of treatment, even though the bearers of those methods were already spread widely throughout the empire. And this latter is very far from describing the distribution of those who have gained some little insight into foreign surgery.

As a matter of fact, medical men in China have been able to do little more than train assistants for their personal work, even the Viceroy's College* at Tientsin having been only a one-man effort, and having, at least temporarily, collapsed with Mackenzie's death. The Hongkong scheme† is the first effort to establish a medical school for Chinese on a broad basis, with individual teachers for each of the subjects embraced in the curriculum, but even here all the

* China Medical Missionary Journal, vol. i., p. 100.

† Vide Alice Memorial Hospital Report for 1890, p. 17.

work of teaching is done by volunteer effort, and is therefore to a certain extent precarious.

The time is therefore far distant when any widespread attempt can be made to dispel the prejudices of which I have spoken, and to substitute scientific treatment for the crude surgical methods described in the earlier part of this paper.

Anti-foreign Feeling.

There is a powerfully conservative element in the Chinese character, which makes the Chinaman naturally dislike the foreigner and everything foreign which threatens in any way to change his already established institutions. This feeling of hatred and distrust meets the foreigner wherever he goes in China, and is at the root of the disturbances that so continually arise wherever foreigners are settled. Now the foreign-trained native surgeons will be to a large extent identified with their teachers, and will have to endure their full share of this dislike to all that is non-Chinese.

Vested Interests.

The vested interests of the native practitioners must form an obstacle to the progress of Western surgery in China, though, but for the fact that medicine and surgery must go together, this would be less noticeable than in the opposition to the progress of Western medicine, since the Chinese practitioners are themselves rather willing than otherwise to grant the superiority of our surgical methods over their own.

In course of 1890 we had a native doctor, who had been trained by Dr. Kerr in the Canton Hospital, carrying on work by itineration in connection with the Alice Memorial Hospital in a district on the mainland some sixty or seventy miles from Hongkong. At one at least of the larger towns he visited such riots were created by the active opposition of members of the native profession that he was driven to betake himself elsewhere; and his experience in this respect will certainly be the experience of very many members of the new race of Chinese surgeons.

Ancestral Worship.

One of the most powerful influences working in China is that of ancestral worship; but, if one may judge from comparison of the callous treatment of dying Chinese by their relatives with the pompous ceremonials that follow death and are maintained year after year during prolonged periods, this so-called filial piety is less a token of respect for the memory of departed ancestors than an attempt to propitiate their ghosts, and prevent trouble being brought by them to the living. It is undoubtedly a weighty factor working against the progress of Western surgery, and accounts to a consider-

ble extent for the reluctance which the Chinese often show to parting with a limb or any fraction of a limb, even where it is a question of mortal disease. They receive their bodies entire from their ancestors: what would the departed spirits think of their consenting to yield up any part of them? And what might not be the consequences of their incurring the displeasure of those ghostly forefathers?

The Future State.

Consideration of personal future interweaves itself with dread of the spirits of the past to act as a hindrance to the introduction of truer surgical principles into China.

The precautions taken in the case of eunuchs* curiously illustrates the prevalent idea that loss of a member in the present will involve its permanent want in the future. It has already been described how the removal of all the external organs of generation by a single sweep of a knife is the preparation required in servants for the imperial and princely households. The penis, scrotum, and testicles thus removed are never thrown away, but having been carefully embalmed are preserved by their owner, and are buried with him at the end of what may be a long life after the operation.

This dread of impairment of future happiness no doubt combines with the fear of the family ghosts to account for the remarkable reluctance of the Chinaman to submit to any operation involving even the slightest dismemberment. I have many a time seen a man voluntarily prefer death to a comparatively simple operation of such a nature.

Such seem to me the main obstacles in the way of the progress of scientific surgery in China, and not even the mighty weight of the support given to Western methods by Li Hung-chang, the most powerful man in all China, is of much avail towards their removal. That must come by a process of bit by bit forcing the popular mind by practical proofs to the conviction that the foreign methods are after all superior to the native.

Not unfrequently when I meet a case that promises to yield readily to surgical interference, but where operation is absolutely refused, I acquiesce in the protestations of the patient that there is to be no cutting, and undertake to do my best otherwise. Entering the Hospital, he is pretty sure to find some one whose condition has been analogous to his own, and who has been entirely relieved by the knife, meantime having been given a medicine to smell which caused him to experience no pain whatever in the process. A single afternoon's conversation in the ward is usually sufficient to convert him to the merits of Western surgery, and he is generally the first to propose that I be relieved of my promise not to cut, and to profess himself willing to submit to anything I may see fit to suggest,—always, however, with a reservation

* Customs Medical Report, Nos. 14, 51.

where mutilation is concerned. It takes a very powerful motive to overcome the awe of the unseen I have just discussed.

Yet again, some while ago I removed a large stone by lateral lithotomy, and in due course discharged the patient cured. He went home to his native village, told his story, and within a few weeks two of his clansmen presented themselves at the Alice Memorial Hospital asking a similar relief.

The same thing is happening now all over China, and such are the influences that will uproot the false and establish a true theory of surgical practice. Each individual who has been successfully submitted to the surgeon's knife becomes the centre of a little circle prepared to pin their faith when need arises to the foreigner's methods, and the circle of such circles is a daily widening one. The progress being made is slow, is bound to be so, but it is steady, and the time is coming when the Chinese surgeon, who already has proved his capability of using that time when it does come, will have his day, and will magnify chirurgery in the Celestial Empire. Surgery in China, though in the past crude, semi-barbarous, spasmodic, promising much, accomplishing little; though in the present a vanishing quantity, a system of quackery, uncontrolled, oftener doing harm than any good; yet possesses in the constitution of the Chinaman all the advantages, and few of the drawbacks, known elsewhere; and will undoubtedly in the future take a high place, worthy of the great nation which has maintained its identity, and possessed a true civilization, during thousands of years.

THE ARTIFICIAL MAKING OF WILD MEN IN CHINA.*

By DR. D. J. MACGOWAN.

Official proclamations and newspaper reports respecting the recrudescence of the crime of kidnapping in this and adjacent provinces disclose two interesting facts in Chinese sociology—a belief that kidnappers are in the possession of drugs, which, administered to intended victims, bring them under the absolute control of the administrator of the drugs. Concerning this I shall not at present write. The other fact informs us that the kidnapped, aphorized by drugs, are wholly deprived of the power of speech, etiolated by being immured in total darkness, or deformed by mutilation in order to fit them for exhibition by showmen; although these flagitious crimes are capital offences they are not wholly repressible. Unhappily these forms of man's inhumanity to man but partially indicate the sufferings to which man-stealers subject those whom they enslave. Of all the tortures which political hate or religious rancour has devised is indubitably decortication or flaying alive, which usually is not very protracted, but if the

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skinning is performed bit by bit, as when the kidnapped is being fitted to play the rôle of wild man, the sufferings thus inflicted must be agonizing beyond imagination to conceive. This takes place when human skin is removed for transplanting the hide of an animal bear or dog, as small sections of the body can only be denuded at a time; to enable the subject to survive, a long period must be taken up in the full process of making a wild-man, involving excruciating torture before the human being can be reduced to the appearance and condition of a brute. The inbruitment is far from completion when the hide of an animal is grafted on the flesh of the man; he requires to be rendered mute by impairing the vocal chords; the due administration of charcoal, it is stated will induce the requisite dumbness. It is not considered necessary to destroy the faculty of hearing, but the victim is subjected to much the same regimen as that which Kaspar Hauser endured. The *Hupao* describes the appearance and the conduct of an artificially made wild-man who was once on exhibition in Kiangse. His entire body was covered by the skin of a dog, which had been substituted for his own derma or true skin. He was able to stand erect (they are sometimes maimed and only able to go on all fours) he could give utterance to inarticulate sounds, he could sit, stand and make a bow *a la Chinoise*, and conduct himself generally as a human being. Innumerable crowds paid for a sight of him. The district magistrate having heard of the show, ordered the "wild-man" to his *yamèn* where his shagginess and truculent mien caused amusement and terror. "Are you a human being?" interrogated the magistrate, to whom the being addressed nodded assent. "Can you write?" again he nodded, but when a pencil was put in his hand he was unable to wield it. Ashes were then spread on the ground, and stooping down he wrote five characters which gave his name and the place of his nativity—Shantung. Further enquiry disclosed the facts of his kidnapping, of his captivity and of the horrid operations to which he had been subjected. His proprietor was punished—capitally, no doubt, for he admitted that only one in five survived the operation. What is called the *Taliacotion* operation has become known to non-professional readers through encyclopædias; it derives its name from "*Taliacotius*," an Italian surgeon of the sixteenth century, and consists in transplanting skin—as in making a nose from the integument of the forehead or arm—the "*rhinoplastic operation*." While there is no evidence that the Chinese ever practised this art; they were aware that the living animal skin can be ingrafted, and take root on an animal that has been denuded for that purpose, long before anatomy and surgery were studied or thought of at Bologna. Less ghastly though fearfully gruesome is an account of an artificial monstrosity, a product of transplanting that, I find amongst my Teratological notes, is the making of human parasites, causing an adhesion of a boy to a man, chest to chest, forming an epiphyte, rather; such a

union is produced by removing the skin of the subjects of the operation, and lashing the two together, so as to keep the denuded portions in apposition until complete adhesion is effected, by vascular connection, when the unhappy creatures are fitted up for exhibition, the boy being held pendent by straps.

Deprivation of light for several years renders a child a great curiosity, voice being destroyed by drugs, and the system sustained by a peculiar diet. A Ningpoese monk, says tradition, subjected a kidnapped boy to that treatment to exhibit him as a Buddha. The etiolation was complete, no ray of the sun ever glanced upon the young man who looked like wax when brought out of the subterranean cell, in which he had been immured, causing the spectators to imagine he had been fed on lard and white sugar. He squatted with the palms of his hands together, presenting the appearance of an ecstatic monk absorbed in contemplation, as one on the verge of metamorphosis; always kept in that posture, never hearing a voice except that of his keeper, he became a drivelling idiot, almost a vegetable. When public curiosity was satiated, gains no longer coming in, a time was fixed for his cremation. Sufficient intelligence survived in the devitalized brain to inform him that he was about to be burnt, which was detected by the district magistrate, who all along surmised a pious fraud. He observed a tear trickle from the lustreless eyes down the immobile face, further observation and enquiry elicited the foregoing facts. The monk escaped decollation by flight, and the temple was levelled to the ground. An illustration of the atrocities that sometimes accompany kidnapping of children came to the knowledge of the residents of Shanghai shortly after the port was opened. A boy was on exhibition whose head indicated that he had nearly attained maturity, but whose trunk and limbs were the size of an infant's, the atrophic condition being due to confinement in a jar for many years; the head only being exposed during that long period. The revolting exhibition was closed by the Chehsien.

From these cases it will be seen why kidnapping in China is so severely dealt with by the courts, and why kidnappers are so abhorred and execrated by the people.—*The Celestial Empire.*

PRE-DIGESTED FOOD IN BOWEL COMPLAINTS.

By E. W. VON TUNZELMANN, *M.B., London, M.R.C.S., England, Chef.*

To the too long list of universally recognized opprobria of the medical art, such as phthisis, malignant neoplasms, etc., etc., the practitioner in the East is often disposed to add the name of chronic diarrhœa, for the intractable nature of which his training in England will not have prepared him, its serious importance having not yet attained due recognition in medical text-books and class-rooms. Only too often have patients to be sent home, after years of suffering; the resources of medicine out here having proved inadequate to cure, or even to hold in check, the morbid process. Some, unable or unwilling to leave their business, turn as a last desperate resource to the smooth prophesying quack, whose failures, like ours, are hidden by kindly earth, and whose "successes" (cured eventually by nature in the teeth of all obstacles) act as loud-voiced decoy ducks. Timely flight homewards often enough saves such patients, and they may even be able to return to the East, though with risk; but only too often the evil is too advanced to allow of recuperation even under the more favourable home conditions.

It has long been recognized both by the profession and by the laity that the European in China is far more liable than in his natural environment to serious lesions of the alimentary tract. The consequent necessity for prophylaxis is too generally recognized to require emphasizing; but the frequent failure of curative means justifies a short summary of the principles on which these, to be of value, must be based, and the advocacy of a mode of treatment which the writer's experience has led him to place great reliance on, and the value of which, though no novelty is claimed for it, seems not to be sufficiently generally appreciated.

One of the main principles underlying all surgical and medical practice is, that an injured tissue should be placed in a condition of as complete rest as possible, and this condition sustained free from interruption, as long as necessary; while at the same time the general health is maintained, so that the processes of repair may go on as actively as possible.

The utility of complete local rest in lesions of bones, joints, etc., is a truism; in visceral lesions it is unfortunately rarely applicable; when it is, its good effect is often marvellous, even in cases where the tissues seem to be hopelessly damaged; *e.g.* cases of impassable urethral stricture, which, when the bladder is opened and drained, become permeable and easily curable. In the special case of the intestinal tract, the value of a short period of fasting after an acute attack of irritative diarrhœa is indubitable; and it is conceiv-

able that at some future period the progress of therapeutics will enable nutrition to be introduced into the body by some other route than the intestinal tract, so that absolute local rest may be secured for it for as long a period as necessary.

At present however, in cases of chronic bowel complaints, the two desiderata clash ; complete rest for the alimentary tract means starvation, with consequent impaired general nutrition and cessation of the processes of repair, the stimulation of which is the object in view. Events thus move in a vicious circle ; the functions of the intact portions of the digestive tract share in the general impairment of nutrition, and food which, if they were not thus affected, would be absorbed before reaching the damaged part, or would reach it in a readily absorbable condition, now reaches it in a condition which, if the part in question were healthy, would excite in it an abnormal, possibly pathological, activity ; *à fortiori* has it an injurious effect on the damaged tissues. The local lesion is thus aggravated by direct irritation, while the processes of repair are still further depressed by the constantly lessening supply of assimilable material to the tissues generally. When the intestine is extensively ulcerated, as in chronic dysentery, or much thickened and infiltrated with inflammatory effusion, or much thinned, its glandular structures atrophied, and its surface denuded of epithelium, as in sprue, its absorptive power must be slight or nil, and it must afford a favourable nidus for the multiplication of the micro-organisms which normally abound in the intestinal tract ; hence even normal chyme cannot pass over it without doing it injury, inducing harmful movements, and supplying additional nutritive material for micro-organisms, the products of whose life activity play a great part in preventing repair. This irritant influence of micro-organisms has long been recognized, especially of late years, and the usual aim of treatment appears to be to obviate it by the use of various germicides, creosote, salol, naphthaline, etc., etc. In placing our main reliance on such agents we neglect the principle which guides us in the prevention and treatment of sepsis elsewhere, viz., that it is of supreme importance to ensure that micro-organisms have no nutritive material in which to develop, the living tissues as a rule being well able to deal with them if they have no such nidus ; germicides, useful as they are, being of entirely secondary importance. To attain the main object of treatment therefore, the maintenance of the damaged portions of the intestine is as complete a state of local rest and non-irritation as is compatible with the necessary performance of its functions by the healthy part of the digestive tract, it is obvious that the most efficient conceivable means would be an ideal food. Such a food would have two characteristics : (1) the enfeebled digestive tract could absorb it completely, without residue, before any reached the damaged part, so that the faeces would consist solely of the morbid discharges of this

part, and the unabsorbed portions of the natural secretions of the remainder of the digestive tract; and (2) its composition would be such as to afford the tissues the various materials required for their nutrition, proteids, carbohydrates, fats, etc., in such proportion as to ensure the minimum of waste and effort in assimilating them. The nearest approximation to this ideal is obtained by the administration of food which has been beforehand as completely digested as possible; modern pharmacy enabling us to do efficiently the work which the natural digestive juices, under the conditions of ill-health which we have to treat, can only perform imperfectly. For thus pre-digesting the food three classes of agents are at our disposal: (1) various preparations of diastase; (2) pepsin preparations; (3) pancreatic preparations. As however the first of these is available only for carbohydrates, and the second only for proteids, they may at once be excluded, as they fail to fulfil the second requirement for the ideal food above described. Pancreatic preparations however, being able to prepare proteids carbohydrates and fats for immediate absorption, fulfil the requirement in question.

As regards particular pancreatic preparations, no one can be dogmatically asserted to be the best, everybody preferring the tool he is accustomed to work with; personally I have long used Benger's Liquor Pancreaticus, with very satisfactory results. It is doubtful however how long such complex organic bodies can be kept without becoming inert; and for this and other obvious reasons, it may be well for me to describe a method of preparing an efficient pancreatic extract which of late I have been using with complete success (vide note 1). For those who are unaccustomed to these methods a word of warning may not be out of place; viz., that lacto-peptine, malto-pepsin, and such like ridiculous hotch-potches of mutually destructive ferments, should be avoided, in spite of the recommendations of the pharmaceutical departments of the medical journals.

Among the various foods which may be prepared by these agents I find Fothergill's "Peptonized Milk-Gruel" by far the most generally useful (vide "Indigestion and Biliousness." Fothergill, page 65); as a medical library is not within everybody's reach, I have taken the liberty of extracting the description of its mode of preparation (vide Note 2). In conclusion I may add that this dietetic treatment, though especially valuable in case of chronic

Note 1. Preparation of Pancreatic Extract. Take the pancreas of a recently killed pig, and keep it in a cool place for 24 hours; then free it from fat as far as possible, mince it fine, and pour eight ounces of pure glycerine over it. Let this stand for six hours, stirring it occasionally; then strain through muslin, and bottle.

Note 2. Preparation of Peptonized Milk-Gruel. "A good thick gruel is prepared from any of the farinaceous articles above mentioned (arrowroot, etc.) The gruel, while still boiling hot, is added to an equal quantity of cold milk. The mixture will have a temperature of about 125° F. (52° C.). To each pint of this mixture, two or three teaspoonfuls of liquor pancreaticus and twenty grains of bicarbonate of soda (half a small teaspoonful) are added. It is then kept warm in a covered jug under a "cossey," for a couple of hours, and then boiled for a few minutes, and strained."

diarrhoea, is highly useful in many other ailments. In the protean forms of infantile diarrhoea, if the usual drug treatment have failed to check it promptly, it is of great service. Also in typhoid fever; the diarrhoea is usually checked at once, without requiring the aid of opium, flatulence and colic are conspicuously absent, and the need for stimulants rarely arises; this at least has been my experience in all the cases which I have as yet treated in this manner; their number however is too small to justify any positiveness in assertion. Also in other serious illnesses, such as pneumonia; *e.g.*, when the digestive power is much impaired, I have found this treatment extremely useful; it seems to me, in my as yet small number of cases, to obviate to a great extent the necessity for stimulants. It is advisable to bear in mind that when a patient, especially a child, has been fed exclusively on pre-digested food for any considerable period, the return to the normal diet must be made gradually, the degree of pre-digestion being daily lessened; else the digestive organs their crutches being too abruptly removed, may stumble badly.

W. T. STEAD'S EXPERIMENT IN TELEPATHY.

BY ALBERT DAWSON.

During the early part of an interview with the distinguished editor of *The Review of Reviews*, Mr. Stead walked about his room as his usual habit is. I began by asking:

"Are you a spiritualist?"

"I never call myself a spiritualist. I am simply an investigator of phenomena which as a rule are ignored by the majority of busy people. Certain facts have come before me, the only explanation of which seems to lie in a certain direction; but I am quite open to be convinced that the truth may lie in any other direction. If any one can bring me a better working hypothesis than that of spirit-return, I am perfectly willing to receive it. But at present it seems to me no other explanation fits the facts, and until a better explanation is forthcoming I hold to my working hypothesis. That seems to me the only possible scientific attitude to take up in relation to any phenomena whatever."

"But are you sure of your facts?"

"To begin at the beginning I may say I am absolutely certain, having verified it over and over again, that it is possible for some of my friends to use my hand as their own, they being at a distance from me. That is to say, a friend of mine at Newcastle is quite capable of using my hand

here in London, and writing a message, long or short, by the mere action of his mind upon my hand, without any telegraph or connecting wire."

"Could you give me a demonstration—now—on the spot?"

"I will try. I often receive communications from my secretary in the way I have described. If she is late in coming she will tell me the reason why, and say when I am to expect her. She ought to have been here an hour ago, so I will just sit down and question her when she is coming." Suiting the action to the word Mr. Stead rose from his seat opposite me, took his own seat in front of his desk where I had been sitting, took pen in hand, and touched a sheet of paper with its point. I noticed that neither his fingers nor any part of his hand or arm rested on the table, the only point of contact being where the pen touched the paper. The pen began writing, but of course I could not see what. As he finished the last word the door opened, and the secretary presented herself. I looked to see what Mr. Stead's hand had written. It was the secretary's initials, followed by the words "I am here."

I leave the reader to judge whether there is anything remarkable in this occurrence; I do not say that there is, or that there is not; but I do vouch that the incident happened exactly as I have described it. Mr. Stead emphatically assured me that he did not know what his hand was going to write; that the action was purely mechanical on his part: that until she presented herself in the way described he had not seen his secretary that morning; and that he did not have the slightest knowledge whether or not she had arrived. I don't know what the reader may think, but I say deliberately that either Mr. Stead lied to me wholesale, or that a most extraordinary coincidence happened—whether it were by accident or through occult agency. Upon my remarking to Mr. Stead that it might only be a curious coincidence he said at once:

"Certainly; I do not attach any importance to it, only, to say the least, it was rather odd that the verification of the statement should have arrived before the last word was fairly formed. But," he went on, "I have had communications from friends at distances two hundred, three hundred and over five hundred miles, which were afterward verified."

"You might give me the details of one of those instances."

"With pleasure. Here is one which will perhaps illustrate this point as well as anything. Some months ago I was at Redcar, in the north of England. A foreign lady who does some work for the *Review* had to meet me at Redcar railway station about three o'clock. I was staying with my brother, who lives about ten minutes' walk from the station. At twenty minutes to three it occurred to me that 'about three,' the phrase used in her letter, might mean some time before three, and as I could not lay

my hand upon a time-table, I simply asked her to use my hand and tell me what time the train was due; this, I may say, was done without any previous communication with her upon the subject. She immediately wrote her name and said the train was due at Redcar station at ten minutes to three. I saw that I should have to leave at once, but before starting I asked her where she was at that moment.

My hand wrote: 'I am in the train at Middlesborough railway station on my way from Hartlepool to Redcar.' I then went off to the station. On arriving there I went up to the time-table to see when the train was due. It was timed to arrive at 2.52. The train, however, was late; three o'clock came, and it had not arrived. At five minutes past three, getting rather anxious, I took a slip of paper from my pocket, and, taking a pencil in my hand, asked her where she was. At that moment she wrote her name (they always write their names at the beginning and end of each communication) and said: 'I am in the train, rounding the curve before you come to the Redcar station; I will be with you in a minute.' 'Why the mischief have you been so late?' I mentally asked. My hand wrote: 'We were detained at Middlesborough for so long; I do not know why.' I put the paper in my pocket, walked to the end of the platform, and there was the train! The moment it stopped I went up to my friend, and said to her: 'How late you are; what on earth has been the matter?' 'I do not know,' she said. 'The train stopped so long at Middlesborough, it seemed as if it never would start.' I then showed her what my hand had written."

"Was that lady conscious of having corresponded with you in this mysterious way?"

"No; she had no knowledge whatever that she was writing with my hand, and she was considerably amazed at finding that she had done so. I had only seen her once before in my life. I give that instance because it is very simple and compact, and can be verified by reference to the lady in question, whose address I can give you if you like."

"Have you attempted communication at longer distances?"

"Oh, yes. For instance, I tried it with my eldest boy when he was on the Rhine last summer. He wrote, using my hand, twice or thrice quite correctly; but once the message got all wrong. How it happened I do not know; but I suppose in this kind of subtle mental telephone you are liable to cross currents, just as you are in the electrical telephone. You get mistaken messages occasionally; but a mistaken message, or many mistaken messages, cannot impair the scientific value of the fact that you have accurate information on many occasions."

"Can you give me an instance of the kind of communication you had from your son?"

"Certainly. He kept me informed as to his movements—what day he was going to such and such a place, and the day that he intended to return "

"Of which you had no knowledge?"

"Of which I had no knowledge But a more remarkable instance," Mr. Stead continued, speaking with increased earnestness, "was his message about the Kodak plates. The boys had a Kodak with them, and, as usually happens, they ran short of plates and wrote home in the ordinary way by letter, asking for more to be sent. The plates were duly dispatched, and ought to have been received, when my son wrote with my hand saying that they were impatiently waiting for those plates, that they had used up all their plates, and they couldn't go on photographing unless fresh plates were sent. I at once made inquiries and ascertained that the plates had been duly dispatched. A day or two later he again wrote with my hand, asking, 'Why do you not send these plates?' I again inquired, and found that there was no doubt about their having been sent off nearly a week previous. Thereupon I thought my hand was writing wrongly, and I didn't let it write any more from him. But when the boy returned I found to my surprize that the plates had never been received. His complaints written with my hand at Wimbledon were an accurate representation of the state of his mind at Boppard. Some of my friends have written at distances of three hundred miles long narratives of journeys which they have taken, mentioning the trains by which they went and came, the money they paid for their tickets the cost of their dinner at the hotel; in short, giving a multitude of minute details which it was absolutely impossible for me to have divined."

"Does distance in any way affect the success of communications?"

"So far as I can ascertain it makes no difference whatever."

"How did you find out that you had this wonderful faculty, Mr. Stead?"

"The answer to that question takes us on to the further question of communication with intelligences purporting to be on the other side of the grave."

"Ah, that's what I want to be at. But how is that?"

"It was the Intelligence that guided my hand that told me about it. I had no idea, nor, so far as I know, had any one, either in the Psychical Research Society, or among the regular spiritualists, that the mind of a living person could use the hand of another person at a distance and write a message. But the Intelligence that controls my hand while writing one day suddenly wrote, 'Why do you think it strange that I should be able to write with your hand. Any one can write with your hand.' 'What,' said I, 'do you mean that living people on this earth can do so?' 'Try it; you will find that any of your friends can use your hand to write messages which they wish to communicate to you.' This seemed strange, almost incredible; but I promptly put it to the test, and found that the fact was exactly as she had said."

“ ‘She?’ ”

“ Yes; I say ‘she’ because the Intelligence which communicated that piece of information to me always professes to have been a lady friend of mine who died a little more than twelve months since. She was not a very intimate friend, I had only seen her twice in my life, but there was a great deal of sympathy between us. She was a journalist, as I am, and deeply interested in most of the movements in which I am working. She appeared to a friend of mine, who was a still greater friend of hers, at a country house where I was staying. That friend was much disturbed because she could not hear what was said, and she asked me if I knew of any medium or clairvoyant who could hear any message that her dead friend might have to state to her. I then said that my hand had begun to write quite recently, and that as I knew the lady in question she might possibly use my hand. The next morning before breakfast I gave my friend on the other side an opportunity to write; she wrote, and she has written ever since.”

“ Really, Mr. Stead! How do you know it was not your own sub-consciousness?”

“ That is just the question that I asked her. She gave me a test which seemed to me, and I think will seem to you, quite conclusive, that whatever intelligence it was that moved my hand it certainly possessed knowledge which the deceased lady possessed, but which I did not. I will give you an instance of the kind you ask for. I was going down to Preston one day to see the trial of a Feister printing machine which I hoped some day might print a daily paper for me. I left home on the 18th August last with the intention of going to Preston in the afternoon to see the trial of the machine on the morning of the 19th. The owner of the machine had gone down a day or two before to arrange for a trial of the machine on the 19th before the chairman of his American Board. When I left home I told my wife that I should not be back till the next day. On arriving at the office at ten o'clock, my hand, in the presence of my secretary, wrote this:”—

As he spoke, Mr. Stead took down a substantial diary, turned to August 18th and read off the following entry, I following the words with my eye whilst I took them down in shorthand. The writing was rather straggly, though not large, sloping backward, the words all being joined together and with little or no space between. It reminded me of the work I have seen turned out by the electric writing telegraph. Here is the “message” from “Julia”:—

“ ‘I want to tell you that things are not going quite right about the morning paper. You will not go to Preston to-day; the machine will not go right, and B—— (owner of the machine) is in a state of frenzy. . . . The machine was tried on Wednesday morning (the previous day), and when it was working something broke, which will have to be mended, and the trial which

you expected to-morrow will not be possible. B—— is at the Métropole; you can telephone him, and he will tell you that things are so. I am quite sure that you will not go to Preston to-night. I do not want you to be disheartened about that machine; it is a good machine; but the delay will give you time to go to America, and that will be excellent for both you and M——.

"On receiving that message, which," said Mr. Stead, "I did not expect in the least, for I had no reason whatever to believe that anything had gone wrong with the machine, I telephoned to the Métropole, and found that Mr. B. was there. I had expected he would be at Preston. He came round in the afternoon looking haggard and ill. I asked him what was the matter. He said that his head was bad, and that the worry he had about that machine was enough to kill him. I said: 'What is the matter?' 'Well,' said he, 'yesterday, you know, I had the Chairman of our American Board there, and that machine no sooner got started than two of the springs broke which clip the paper and carry it round the cylinder. The result was the trial could not go on. I was so put out that I was physically sick, and my head is bad yet.' 'Then,' said I, 'what about going down to Preston to-night; the machine will have to be repaired.' I then smiled and said, 'I knew all that before you came,' and produced the journal which I have just shown you, and read the message which had been written with my hand at ten o'clock that morning."

"And you had absolutely no other communication about the machine than that from 'Julia,' and until you received her message you fully intended going to Preston; and had no suspicion that Mr. B—— was at the Métropole; and you did not go to Preston, but went home?"

"I had absolutely no other communication, and the message from 'Julia' changed all my plans. Thus I know that an Intelligence which is not my own mind is able to and does occasionally communicate things to me of which I know nothing. That is a verified and verifiable fact."

"How far does your Intelligence know things that are going to happen?" I had in my mind the fate of governments, the outcome of elections, the result of horse races, etc., though I did not mention any of these to Mr. Stead.

"What she says is this: That sometimes she is able to see what is going to happen, but she is not allowed to communicate. Sometimes she is permitted to communicate such information, and at other times she doesn't know anything at all about it any more than we do."

"Can you give me any instance of this prevision on the part of your 'Intelligence?'"

"Certainly. The very first day on which she ever wrote with my hand she made a statement as to something that was to happen to a friend of mine concerning a long journey which she was about to take in the autumn. My friend laughed at the prediction, and said that it was absurd. So did every

one connected with her. But the Intelligence that controls my hand calmly and constantly repeated her assertion. My friend, she said, would make that journey, notwithstanding everything that seemed against it. When my friend made engagements to attend public meetings in October or November of which I knew nothing, my hand wrote remonstrances saying that the engagements had been made, but that they would have to be cancelled as the journey would have to be taken. Down to the very last my friend ridiculed the story and laughed at the idea that she should alter her public engagements merely because my hand said she had to take a long journey which she was quite determined not to take. All the same it came true to the very letter."

I remarked to Mr. Stead that if what he regards as his own "particular patent pet discovery" should stand the test of time, it would give him, as a journalist, a supreme advantage over others. "Exactly," he replied, "simply incalculable. Think of what a change would be affected by being able to receive a message from the heart of Russia or America instantaneously without the use of telephone, telegraph, or any other mechanical medium of communication." At present, however, the system is but in its experimental stages and is not always to be relied upon. Happily, all these things are to be investigated by the Society for Psychical Research. Mr. Stead has offered to lay the evidence before them, and before passing any judgment we must wait for their verdict.

Mr. Stead takes all these wonders quite calmly, as if they were all ordinary incidents in his day's work. "Apart from the journalistic value of this discovery," I said, "is there any utility in spirit-return?"

"The right question to ask is not whether there is utility in it but whether there is truth in it," he replied. "You asked me just now about the correspondence in the *Daily Chronicle* under the heading, 'Is Christianity Played Out?' Have you reflected for a moment what the consequences would be if the fact of spirit communion, and the permanence of the individual after death could be scientifically demonstrated?"—*The Independent, New York.*



SYMPOSIUM.—THE CHINESE EXCLUSION BILL.

By Messrs. DZAU FOH-KUNG,

ZUNG CHING-TSUR,

TSING KONG-WOO,

YEA SUNG-LEE.*

Dzau Foh-kung.

A man is judged by his actions so therefore is a nation judged. Christ said "If ye want to know the character of a man see his fruits." A good tree cannot bear bad fruit nor a bad tree bear good fruit. Upon this principle, I judge whether a country is good or bad, civilized or uncivilized, by the part she plays in the welfare of mankind. America, I have no doubt, has done much for our country and helped not a little to uplift the whole Chinese race. Therefore I have hitherto regarded America as our benefactor and was so glad that Americans were friendly to us Chinese. But this appreciation of our mutual friendship was not to last long. Until this unjust Bill was passed I regarded America as a Christian country, governed by Christian principles and therefore I expected that their actions would be of a Christian character. Looking at this Bill, I conclude that America is but nominally Christian and a civilized country of mere external form, having the form of a sheep and, I regret to say, the heart of a wolf. She has great material prosperity and all the forms of a civilized country, but her internal condition is still barbarous. Whatever explanation you may give of the justice of this Bill, I cannot listen to it. The Bill is wrong, it is selfish, it is unjust, it is narrow-minded. Although the Chinese people may not all be very good, yet I can't see what right the Americans have to expel them in the face of our treaties. To drive them out because they work at cheaper rates, and harder than other foreigners is unreasonable. They do so because they see, at the present day, that the Chinese government is not powerful enough to resist their action, and they act accordingly. "Might makes right" was the lawless principle of ancient times, it should not be exercised at the present day.

Zung Ching-tsur.

This Bill was emitted by some Pacific Coast Americans in order to expel the Chinese from their country. It is not wise to forbid one country from communicating with another. For communion benefits all countries, absorbing each other's civilization, manners, customs, and arts. This exclusioning is altogether wrong either on moral or political opinions. If this Bill is not withdrawn, there will be some unpleasantness, if the Americans continue

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to send their missionaries here. We know that countries are influenced by learning the secrets and progress of other countries. I am speaking of civilized countries but America must now be classified as uncivilized as not Christian, and their people be condemned as unpolite. It will not be wrong for the Chinese to urge the Americans out of our country and stop all communication. For we are all creatures *i.e.* we were all created by the one same God. If your people come to our country why cannot we go to your country? All men are born free and equal in God's sight. The great American people have no moral right to forbid us their country but to satisfy their passion for self-exclusion.

Csing Hong-woo.

This is an utterly unjust act. Our Emperor has issued many of his Imperial Orders for the protection of foreigners, clergy and merchants alike. Alas! in return that the Congress of the United States of America should pass the "The Chinese Exclusion Bill."

This Bill I would remark is not only wrong and unjust to the Chinese, but it rouses up in the common minds thoughts that every act of the Americans must be unjust, and that all foreigners are unjust too. Is it justice? If I went to a man's house, and he welcomed me kindly should I drive him out when he comes to my house? Suppose our Emperor now gets angry, and fulminates his command that every American should be driven from China, what would be the result? Perhaps a war would break out. Pride is the cause of this persecution for we are looked down upon by them. They boast that they are good behaved and polite, while I suppose they think that the Chinamen settled in their country are too rough in character and too unpolite to remain with them, but I think that the more the Chinese settle in their country, the better for them, for we would teach them our arts and civilize them.

Hua Sung-lee.

China is one of the oldest countries in the world carrying its history back to about 2800 B. C. Our ancestors knew little or nothing of the outside world and kept themselves isolated from the "barbarians." Dynasty after dynasty of our emperors was conquered by the Northern tribes. Until up to the time of the Emperor Tao Kwong the "Red Haired Men" came in and then the English, French and Americans followed and engaged in commerce with us. Certainly our Government was unwilling and gave way but to force, and made treaties with them allowing them to remain. A few years elapsed

and the Americans eagerly invited us to visit their country and help them to make it strong for fear of the English, as their country was young at that time. Now as their fortitude is almost completed, they having obtained all they wished are anxious to drive us out. They don't think it is an act of injustice. I consider it unlawful and wrong. The Americans despise us yet many like to live in our country. The cause of this Bill is I believe in respect of the Irish laborers who can't labor as well or as cheaply as my countrymen, and as they can make themselves unpleasant when they want to change their Presidents, this illegitimate Bill was passed for them. Why are the great American people so unnatural as to do such a shameful deed? Surely they know it is wrong, if not I must tell them so. But they are overcome by their love of self. They have naturalized the Irishmen and so consider it is better to help them. Why did they invite us at one time and drive us out at another? Many thousands of my countrymen are now living in California, they are accustomed to America and they have a better chance there. What will they do when they are hunted home? Very truly, many will starve and become criminals. I know our country is weak, therefore they dare to disdain us. I hope they will not do this for too long, for perhaps some day we may become strong and they weak. If that is so, then my country in her strength can shew how noble she can be to that which is not strong.

HEALING BY FAITH NOT FAITH-HEALING.

By J. N. B. SMITH, D.D., *Shanghai.*

Faith-healing is physically, morally, and spiritually, indefensible; and, although its fundamental principles are true, its conclusions are the result of an illogical perversion of those principles. The truth of this statement is not affected by the fact that many of those who teach and practice Faith-healing are good people. Good men are not always logical, neither does it appear possible for any man to be thoroughly consistent; so while I am ready to admit the Christian virtues of the advocates of Faith-healing, I usually feel that they would be better Christians if they would be less condescending, and more charitable, towards those who believe that "faith and works" should be united in healing, as well as in nourishing the body.

Faith-healing proposes, and professes, to accomplish physical results without the use of physical means, *i.e.* to perform a miracle, under the most ordinary circumstances. In this it opposes the law of the use and occurrence of miracles, as well as the law of the physical universe. It is true that God forgives sin, but it is wrong for us to presume on His mercy, and disobey His laws; but this is what the Faith-healer does, when he refuses

to avail himself of well-known remedies to cure or prevent disease. Faith-healing fosters spiritual pride. The assumption of superior piety on the part of those who profess to have so much more faith than the rest of God's people, is not always unconscious, and is never a "means of grace."

The foregoing statements are not meant to be an argument against Faith-healing, but they are offered as an introduction to what I have to say on the subject of Healing by Faith, in order that my position may not be misunderstood. I do not believe in Faith-healing, but I do believe in healing by faith, and have no doubt that "the prayer of faith will save the sick," especially when the sick one uses the remedies which God has provided, and taught man how to use. Other things being equal, the chances are greatly in favour of the man for whom prayer is being made; and the praying physician will always be more successful than his prayless brother. While prayer is not among the remedies usually found in *Materia Medica*, it is nevertheless highly important that the physician should be able to know its properties, and when and how to use it.

It is true, as claimed by the advocates of Faith-healing, that disease is a punishment of sin; and that Christ came to save from sin. But it is not true that we are not to be punished for our sins against the laws of health, because we having "saving faith." So long as men sin they will be punished; and so long as Christians die, it is absurd to claim that the same faith which saves us from spiritual death, by uniting us to Christ, will save us from disease and physical death, of which disease is the precursor. Our salvation from disease, and death of our physical nature is to be accomplished by physical union with Christ. One of the principal lessons which Jesus and the Apostles had to teach the Jews, was that the mere physical union with Abraham did not entitle them, as his descendants, to the blessings of spiritual union with him. It is equally true that spiritual union with Christ does not, *per se*, entitle us to the benefits of physical union with him. The mistake of the Faith-healer is that he confounds things spiritual and physical, and undertakes to cure physical diseases with spiritual remedies.

While spiritual and physical life and laws are essentially different, it is nevertheless true that in both, preservation and growth are alike dependent upon the same principle of obedience to law. We are saved by faith, not because God accepts our faith in lieu of obedience, but because our faith *is* obedience. We obey God when we accept of Christ as our Saviour, just as much as we would obey Him if we kept the whole moral law perfectly. But if a man fails to obey spiritual laws, and neglects spiritual remedies, his profession of faith in Christ will not save him. In such a case lack of obedience shows, and is due to, lack of faith. The profession, or even the possession of faith does not absolve us from our duty to obey God

perfectly, and every failure to keep the commands of God brings its punishment in a sense of separation from God, which is more intolerable to the child of God than any purely physical suffering could possibly be. Physical suffering may accompany, but does not come as a punishment of spiritual, or moral disobedience, except when the infraction of the spiritual, involves also an infraction of the physical law. The points of contact between the two are very numerous, and it is necessary that the two should be so united, in order that the unregenerate may, through physical suffering, be brought to a sense of sin. It does not follow that the physical disease and suffering of God's people is necessary to convince them of sin; it is more likely to be sent as a trial of faith, *i.e.* looking at the question from the standpoint of the minister. At the same time the physician would not be mistaken if he were to say that it was sent as a punishment for disobedience to the laws of physical life. I have already said that so long as a man sins, so long will he be punished. The converse is equally true;—so long as a man is punished so long does he sin. God does not punish men unless they transgress his laws, and "ignorance of the law excuses no man." But to be effectual, the punishment must bear a necessary and essential relation to the offence. The same rule applies to the remedy that applies to the cause of the disease, and while the principles which underlie the use of the remedies are the same, the remedies are essentially different.

It is possible that Faith-healers do not take into consideration the remedial side of the Atonement, and confound sin with the consequences of sin. Christ's death was expiatory, in that it paid the utmost penalty of sin, and saved His people from eternal death. It was remedial, in that it provides a remedy for sin, whereby His people are saved from sin itself. We are sure of Eternal Life the moment we believe on and accept of Christ; but we are not by that act saved from sin. This is evident from the fact that the development of Christian virtues and character is usually a long and trying operation, and in that operation we must obey the laws and use the remedies provided for the development and growth of spiritual life, and for the prevention and cure of spiritual disease. The cure will be completed when our souls "enter into glory," as we "fall asleep in Christ." The same is true of physical death. It is a well-known fact that the average length of human life is being gradually extended, and as men come to a better knowledge of the laws of the growth and development of physical life, and the remedies of physical disease; and learn to obey the one and use the other, Human life will be extended until "the child shall die a hundred years old." The cure will be complete, when, at the Resurrection, our bodies and souls shall be re-united, and we shall be "forever with the Lord."

One of the principles of spiritual life and growth is that we shall acknowledge our dependence upon Our Heavenly Father, and come to Him in prayer, whenever we are in trouble, or feel our need of His assistance. But our prayers will not be answered, unless we obey the laws of spiritual life. We must forgive, if we would be forgiven. If we would know the doctrine, we must do His will. The same principle is applicable to physical life. If we will come to God in prayer, acknowledging our dependence upon Him, and seeking to know and do His will in regard to the preservation of our health, and the cure of our diseases, He will hear and answer us, providing we endeavor to obey His laws and use His remedies.

A man may be cured of covetousness in answer to prayer, without the performance of a miracle. All that is needed is for him to practice the opposite virtue and give with increasing liberality. So in physical disease a man may be cured in answer to prayer, if he asks for his physician to be given wisdom as to the cause and cure of his disease, and then trusts God to direct his physician in the use of his intellect, as he is pursuing his investigations and treating the disease. In such a case the recovery of the patient is as much in answer to prayer as if God had appeared and performed a miracle. We ask God to send the Holy Spirit to guide and enlighten us in our investigations as to spiritual truth; we ought to seek the same assistance in our investigations of physical truth.

I believe, when we ask God to heal us, that he will do it just as certainly, when our body is sick, as when our soul is, and in accordance with the same principles in both cases. In answer to prayer, God will guide the physician in his investigations as to the origin, prevention, and cure of disease, in particular, as well as in general cases. God will guide the physician in his choice and use of remedies for his suffering patients, just as much, and as surely, as he guides the minister in his choice and use of words to heal his broken-hearted parishioners. God will help us as individuals, to understand and care for our bodies, just as surely as He will help us to understand and care for our spiritual nature. In either case it would be foolish if not wicked for us to reject the help of one who had better knowledge of the subject than ourselves. When we pray "Lead us not into temptation," we ought to avoid as far as we are able, everything that may be a temptation to us, so when we ask God to keep, or make us well, we ought to avoid those things which may make us sick, or retard our recovery. If we have a fault (a spiritual disease) for which there is a well-known and certain cure, we will pray in vain for deliverance from that sin, until we try the remedy. So when a man is sick and refuses a sure remedy, his prayers for health are mockery.

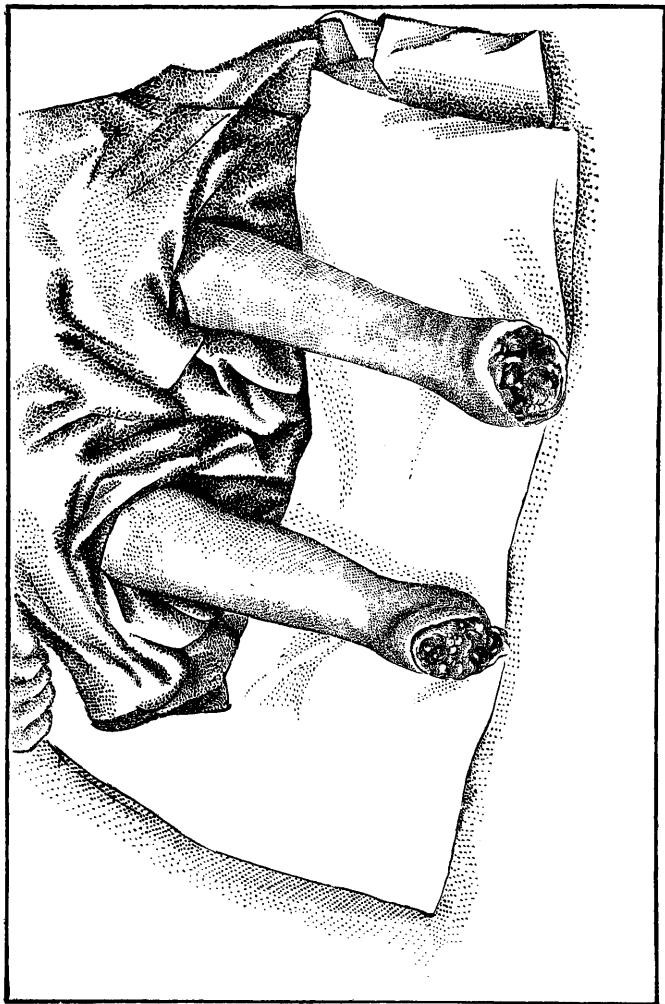
In conclusion, I believe that faith and prayer have just as important a place in the cure of physical, as they have in the cure of spiritual disease.

There are often crises in disease, when the limit of human power is reached, and it rests with the Giver of all life, whether the disease shall continue, or that some means beyond human ken shall stay its progress and give hope to physician and waiting friends, and recovery to the sick. Many a life has been spared, because the patient's prayerful trust in God has enabled him to rest and sleep quietly. Prayer quiets the surgeon's nerves, while it guides his hand in the most delicate and difficult operations. Above all, prayer is communion with God, and is meant to draw us near to Him; and the nearer we get to God the more we may learn of His laws, physical as well as spiritual. Therefore my brethren let us pray that God will guide you in your studies, and bless you in your labours for the physical renovation of humanity in general, and China in particular; and rest assured that "your labour will not be in vain in the Lord."

NOTES ON FOOT-BINDING.

BY MARIE HASLEP, M.D., *Shanghai.*

The manner of bandaging the feet usually employed by the Chinese, mostly Cantonese, who have spoken to me on the subject, is, while leaving the great toe straight, to fold the other toes on the plantar surface of the foot, often until the tips of the toes are on a line with the edge of the inner side of the foot, and then bind the foot "snugly." Gradually the bandage is made tighter and tighter. When the metatarsal bones begin to curve, making the characteristic lump on the dorsum of the foot, the bandages are tightened more rapidly than before. If swelling takes place above the ankle, bandage the foot more tightly. If ulceration occurs, bandage the foot tighter. Swelling is not a desirable complication. Ulceration is greeted with joy, it being so usually a sign that the foot is yielding gracefully to the inevitable. "*Lan siu kiäh*" (ulcer, small foot) is a common saying. To make the smallest foot, with the minimum of suffering, and produce no untoward results is the desideratum; this process should take about ten years. Patience will then evidence her perfect work; that which foreigners call a deformity, and restricted locomotion, are necessary sequelæ, not untoward results. This is the method ordinarily practiced. But there are careless persons, or cruel, who having neglected to begin to bandage the feet of a child at the proper time, (which is when she is between three and five years of age), or, having bought a child with unbound feet, desire to accomplish the same end in a shorter time. In these cases the feet are bandaged tightly and smaller from the first. The work is sometimes done by a relation or friend, ignorant of or ignoring, the risks



taken by so doing. More often the services of a professional bandager are obtained. This woman carries with her a stock of small wooden shoes of various sizes. These are the patterns. Her patrons choose the size desired. A contract is then made to have the foot of this size in a certain length of time. Three years, or more or less as the case may be. The shorter the time, the harder for the child especially if she be one of the neglected ones whose feet have been left to nature more years than is well, if they cannot be left with her for all time. The professional bandagers, for the most part, fulfil their contracts with superb indifference to the sufferings of the children. These latter are the cases in which such accidents as death of the child, gangrene of feet, necrosis of bones, etc., occur. Of course in any case, with the predisposing element of impeded circulation, freezing or burning, both common casualties, will excite trouble more readily than in the natural foot. As, no doubt, most if not all of the hospitals in China have seen more than one or two just such cases; the following short history, of one of several, now under my observation will be sufficient for illustration. One morning a girl about twelve years of age was brought to me. By the penetrating odour which encompassed her, it was easy to realize that there were forces in and around her somewhere "working in inverse order." Her friends who, judging from appearances, were in good circumstances, said she was a native of Foochow, had had her feet bound in Canton, and they feared the bandaging had been too tight, and that the feet were not doing properly, at any rate not so well as they wished. Would I be kind enough to examine them and see if their surmises were not correct. I would, certainly but not with pleasure. *That* odour and pleasure being incompatible. One of the feet fell off when the bandages were loosened. With the other it was necessary to sever some ligaments. The stumps are similar to those of a Symes amputation. The question is often asked, What shall be done to stop this cruel practice? To me there appears but one true way and it is also sure. Educate the heads and hearts and let these educated heads and hearts care for the feet. This will take many a year! Yes, it will, and, judging from the history of its analogue in the West, China may become a Christian nation, may take her stand among the foremost nations of the world, may even, as some prophesy, lead all other nations, and her women hold a position above that of even the most envied women of to-day before the era in which all feet will be of natural size arrives. It does not seem altogether impossible that one of the leading medical journals of China in the year 2093 may contain an article parallel to the following which is taken from the *London Lancet* of February 11, 1893.

"It would still be premature to conclude that we have done with the practice or the ill-effects of tight lacing. Were we disposed to doubt the prevalence of this custom the medical records of every day could prove its con-

tinuance, nor can we see how it should be otherwise as long as the stiff corset retains its place as an article of dress. Now and then some fatal mischance is found to be traceable to its abuse, while instances in which ill-health has been the penalty are far from uncommon. Every practitioner is familiar with cases of this kind, and it needs no searching examination to convince him that among the pallid complexions and palpitating hearts which require his attention, some are directly traceable to the pinching vanity of the corset. Why this effect should follow such a cause we need hardly explain to medical readers. They can well appreciate the vicious influence of cramping pressure exercised upon the trunk and its viscera for the greater part of every day . . . And need we feel surprise if now and then the thoughtless vanity which exchanges every physical comfort for mere appearance leads to forfeit of life also ! If experience be credited it is so.*

* With regard to the origin of the abuse of foot-binding Dr. Faber writes in the *Recorder* for April.—(Ed.)

It is of doubtful origin. Chinese writers disagree. But certain it is that it originated in an Imperial harem during the T'ang dynasty. It is said that it was invented to disguise natural deformity. This is a confession that its origin is in *human vanity* and *deceitfulness*.

Is it legal? The practice is against the usage of Chinese antiquity. It was not known in the classical period. It made its appearance about 1400 years *after* the time of Confucius. Thus we may say that foot-binding defies the teaching of the Chinese sages.

The emperors of the dynasty now ruling over China have issued prohibitions against this unnatural usage without success. We learn from this fact that it is against the will of the emperor. As in China the published will of the emperor is law to the country, this practice is consequently in defiance of the laws of the country. No Manchu lady binds her feet. The Empress of China and the highest ladies of the Imperial court allow their feet to grow in their natural form and size. Foot-binding is therefore in defiance of Imperial example.

CHINESE PHILANTHROPY.

BY THE REV. J. W. DAVIS, D.D., *Soochow.*

Europeans who make money by the opium traffic are continually trying to convince the world that the outcry of missionaries against this sore evil is too strong. Those of us who live in the interior and come daily into contact with the Chinese know that the outcry is not strong enough. Words cannot describe the ruin caused to body and soul of the smoker : nor can tongue tell the misery into which the smoker's poor wife and children are plunged. Let the actions of ten benevolent Chinese in Soochow speak. Actions always speak louder than words. These ten men belong to the higher class. They are moved by the broad fact that suicide by opium is a widespread evil common all over the empire. This form of suicide is one of the indirect results of opium smoking. Opium is so easy to get : and the working of the poison

is so sure and so painless that the temptation to commit suicide by swallowing a dose is, as facts show, irresistible. Multitudes die in this way every day. The ten men of whom I write make no clamor: they go to work. They have entered into a solemn covenant that they will devote their lives to saving would-be suicides. One of them has been coming daily to Dr. W. H. Park in Soochow to learn all he can about the best way to deal with these patients. No expense is to be spared. All the appliances available are to be gotten. Dr. Park goes soon to Shanghai with an order for six electric batteries to be used in this good work. His pupil, after coming daily for some time, taking notes, recently made a careful review, going over all that he had written down while listening to Dr. Park. He proposes to impart the knowledge he has thus gained to his nine fellow-workers, and when they have become adepts in the best way of dealing with the unhappy wretches who seek death, they will go to separate fields. Some expect to go to distant provinces. The one who has been coming to Dr. Park for instruction writes upon his sign-board that he will go day or night to see any case far or near. This picture so bright and fair in the midst of the darkness has on it a broad shadow. While using all the means available, including European learning and medicine and instruments, these men propose to use incantation; they will repeat certain charms which they believe will be helpful. They also propose to abstain from eating meat on the days spent in dealing with their patients.

In the middle of the city there is another Chinaman at work fighting the monster evil. Let his actions also testify. Having learned the use of the hypodermic syringe, and having a supply of morphia, he is making a specialty of curing opium-smokers. Two dollars each is the charge; and daily he injects the drug into the arms of his patients, who are many. They stand in a line and he rapidly operates along the line. One man's arm showed a long row of punctures made, one each day. As to the success of this method of effecting cures I am not prepared to speak.

NOTES ON CASES.

BY W. E. MACKLIN, M.B.

Midwifery. Case 1. This was a case of arm presentation which had lasted two or three days and in which the midwife had pulled at the arm till the humerus and muscles had broken and it only hung by the skin. The patient was very low, I took the case in hand and tried to turn but failed, so was obliged to cut off the head and remove the body and head separately, but there was a small rupture of the uterus of which the patient died.

Case 2. Arm presentation ; died before my arrival at the house.

Case 3. I was sent for because the after birth would not come away. I found that the midwife had pulled so energetically at the cord that the whole uterus was pulled out of the body, the os reaching half way to the knees. I pushed it back, and applied the Faradic current which produced good contractions and expelled the afterbirth. The woman recovered. I have been told that the cord has been pulled so hard that the uterus has been pulled away with the bowels.

Case 4. A case of placenta praevia with almost central implantation but an easily dilatable os. I turned, got a foot down and soon delivered safely and the woman recovered though she had a secondary hæmorrhage and an attack of septicaemia.

Case 5. The same woman about a year later called me in because the afterbirth would not come away and I suppose the midwife had not neglected to pull at the cord. I used a strong Faradic current but without effect, and I was obliged to peel the placenta away with my finger as it was firmly adherent.

Case 6. Just after the riots I was called to attend a poor woman in a rough quarter of the city and a large crowd of roughs followed my chair yelling, 'Foreign devil.' She lived in a miserable thatched hovel about ten feet square. I found that the midwife had pulled at the feet of a footling presentation till she had torn off the body at the neck leaving the head inside. The vagina was very dry and felt like sloughing. I applied the forceps but after using all the traction I dared was obliged to desist. I then had my assistant hold the head and I perforated using the blunt hook but it was difficult to get the crushed head through the os, it was so firm and unyielding. It seemed like scirrhus degeneration. I douched freely with creoline solution, but the patient died a few days later of septicaemia, I suppose. All the time I worked with the case a nasty mob was surging outside, and sometimes I thought the house would be pushed over, but I did not fear as I felt I was doing the work of the Lord. An official guarded outside the door with some soldiers and he escorted me out of the crowd.

Case 7. Os dilated, waters escaped but entire absence of pains for hours. I had sent for forceps but disliked waiting, so applied pressure from above, and pulled at the face through the rectum with my finger and soon delivered without the forceps and without any pains as far as I could judge. Such a method might save many applications of the forceps.

DR. MCCARTNEY writes of *Removal of a piece of wood from the rectum after thirteen days retention.* The patient a man, about 55 years of age, shoemaker by trade, gave the following history. Thirteen days previously during

a temporary fit of insanity had poked a wooden wedge used in making shoes up his rectum.

In a few days the fit passed off, and evidently having forgotten what he had done, complained of considerable pain in the rectum. He was brought to me by his brother who gave the above facts, with the idea of having him relieved. He told me how large the stick was, but this we did not credit. Inserting the rectal speculum for examination the point of it struck a hard resisting substance above the internal sphincter. Making a digital examination we found the stick fully as large as he had said, and which we were just able to reach with the tip of the index finger.

We were unable to get any hold with a pair of ordinary forceps, and after many attempts decided to apply the cephalotribe. Placing the patient over a stool with his buttock elevated, we then operated.

With the greatest care, it required the combined efforts of two men to deliver it. The patient suffered considerably during the operation, and prolapse of the rectum followed, with laceration of the hæmorrhoidal veins. The rectum was packed with antiseptic cotton thus controlling the hæmorrhage. We are at a loss to know how to account for the lack of more marked abdominal symptoms, one would naturally suppose that they would have been produced after so long a time.

Before making the examination we could not tell from any outward appearance whether the man was telling the truth or a lie. He would not remain in the hospital but returned to his own dark and filthy quarters.

One of my assistants visited him every day, and reported that there was a slight prolapse of the rectum the following day, repeated doses of castor oil failed to move his bowels. He died on the morning of the fourth day, having had no movement for 17 or 18 days. There was no marked rise of temperature though considerable pain.

The piece of wood measured as under :—

Length $7\frac{1}{4}$ inches.

Large diameter $2\frac{1}{2}$ inches.

Small diameter 1 in.

Case No. 2. *Necrosis of lower jaw from the symphysis to its articulation, caused by ulceration of the teeth, and its removal.*

The patient a man about 35 years of age, silk merchant from Lu-choe, gave the following history : about 8 months ago the teeth on one side gave him great pain followed with the discharge of a great quantity of pus.

When he came we found his mouth very foul and bad smelling from the decay that was taking place within, with the necrosed bone sticking full of decayed teeth with jagged edges which were a constant source of irritation to the buccal cavity. The left side was considerably hypertrophied owing to the

constant irritation of the bone, having the appearance of a bony tumor. At the first examination we decided that the bone was immovable and that it must be resected in the ordinary way. Assisted by Dr. Davenport the man was put under chloroform and upon a second examination being made we ascertained that the bone was movable. It was freed with a periosteum elevator, its loose extremity grasped with a pair of bone forceps and was without much difficulty removed to the angle, the remainder was taken away in two pieces, and the cavity packed with antiseptic cotton. In less than two weeks the man was discharged cured and what was at first supposed would be a bloody operation was proved to be not so.

Case No. 3. *Gangrene of both feet*, double amputation.

When the patient, a little girl, aged 6, presented herself, the feet were already separated and hanging by the tendons. Two or three weeks previously her mother directed an attendant to bind her feet tighter as they were too large for a girl of her age, the little one cried and complained of great pain, but the mother was so stupified with opium that she would not listen to the little one's cry.

We advised immediate amputation which was consented to by the father. Assisted by Dr. Canright we amputated both legs about two inches above the ankles, relief from pain was instant, healing was by first intention and recovery in less than three weeks.

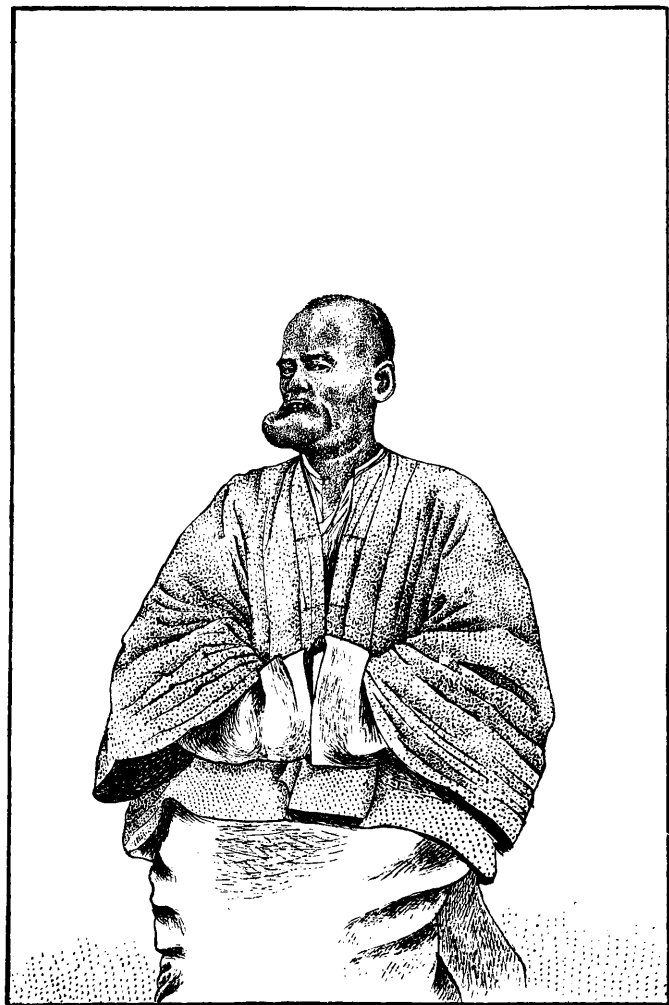
This case is the result of the cruel system of foot binding, one of many which never comes to the notice of the profession.

Not less than five cases of young girls have been in the hospital for treatment, the cause of their being there was paralysis of the legs from the knee down. The treatment that has always been successful, was unbinding the feet, and daily application of electricity. I have seen many more cases similar to the above but either the patient or their parents would not consent to this form of treatment. I would like very much to know whether this form of paralysis has been met with in any other parts of China.

Dr. Douthwaite reports the following case from Chefoo:—

Elephantiasis of Face.—Wang Teng-fuh, aged 26, of Wen-teng-hien, Shantung, was admitted into the C. I. M. hospital at Chefoo, 15th Oct., 1892, for the treatment of Elephantiasis of the lower half of his face. His appearance on admission is shown by the accompanying photo-lithograph. The skin of the affected part was of a dark copper-colour, and four times the normal thickness; soft and spongy to the touch, and slightly anæsthetic. The lower lip projected about two inches; hanging down, and allowing the saliva to continually dribble away.

Patient stated that the disease commenced about six years ago. He was



Elephantiasis of Face.

less distressed about the deformity than over the difficulty experienced in eating and speaking, on which account he sought relief.

A few days after admission I removed the projecting portion of his lip, and by careful trimming reduced the deformity to a minimum. The tissues swelled considerably after the operation, and most of the stitches tore through the mucous membrane, but ultimately the result was good, and the man returned home highly pleased with his improved appearance. There is nothing of special interest in this case, except its rarity, and this is my reason for publishing it.

MEDICAL NOTES FOR NON-MEDICAL READERS.

No. IV. Diarrhœa and other Bowel Complaints.

By S. R. HODGE, M.R.C.S., L.R.C.P. (*Lond.*)

What is a diarrhœa? The answer to this is very important if we would treat such a condition intelligibly. The name, of course, signifies "a flowing through" and the old fashioned name was "flux." So far so good, but we have scarcely answered our question yet, for we must have some notion of what it is that flows through and from whence the flow comes.

The idea that some people seem to possess that the surface of the bowel, in diarrhœa, is pouring out fluid, something like a running sore on the body, to which astringents must be applied, is a highly erroneous one. Let us, for a moment, recall briefly, and very roughly, what happens in digestion. For the easier understanding of this we will divide the alimentary canal into four parts: (1) the mouth, (2) the stomach, (3) the small bowel and (4) the large bowel. Each portion has its part to play in digestion. In the *mouth* the teeth divide the food minutely up so that the juices of the stomach can act upon every part of it, the saliva saturates it and causes all its starchy constituents to become changed into a form more easily acted upon by the stomach, whilst the tongue does the manipulation of the mass whilst these processes are going on. Arrived in the *stomach* the food gets mixed with the gastric juice and churned round and round by the muscular walls of the organ until every part has been thoroughly acted upon by the digestive fluid, causing further chemical changes to take place and fitting it for absorption into the blood. This churning process, which takes from two to five hours for its completion in a European (the time varies with the quality and the quantity of the food; it is much longer in the Chinese coolie with his huge meal of half boiled vegetables and rice), being finished the stomach pours its contents on into the *small bowel*. Here the bile secreted by the liver, the

secretion of the pancreas, and the juices secreted by the bowel itself all help to complete the process already begun, carrying it on a step further. It is in the passage of the food (now a white creamy fluid called chyme) through the small bowel that most (but not all) of the nutriment it contains is extracted and, after passing through some purifying and other processes in the liver, finally absorbed into the blood. By the time the chyme reaches the *large bowel* there is little left to be done, except to absorb the watery parts of it and to pass on as excrement the remaining portion which is useless for the purposes of the body.

We see then, at once, that we must look for the causes of diarrhœa proper (as distinguished from dysentery, a very different thing) in either the mouth, stomach, or small intestine. Briefly all causes may be summed up thus:—Some morbid influence has produced an interference, temporary or permanent, in one of the three mentioned situations, in the proper preparation and disposal of the food, causing a large quantity of that which under ordinary circumstances would be absorbed to be hurried on into the large intestine in a half digested condition, from whence it is expelled. These influences may be *in the nature of the food taken*, e.g. indigestible substances, impure water, badly tinned foreign meats and fruits (note well!), unripe fruit, too much fruit, very acid drinks, ice cold water, and sometimes bottled English ale or stout; they may be due to *defective teeth* causing food to be bolted without mastication, and so not being finely divided up the gastric juice cannot penetrate its substance; they may be due to *changes set up in the mucus membrane of the bowel* preventing the proper absorption of the food as in various blood-poisons, consumption, long continued wasting diseases, fevers, etc.; they may be due to *reflex irritation of the bowel* as in chill, worms, dentition, or to *direct irritation* as from impacted fœces in long-standing constipation, or to congestion of the liver, etc. This seems a long list, but it by no means exhausts the causes of diarrhœa, it will, however, serve to show how complex a thing this affection is, and will indicate that the routine treatment which our lay friends so very generally employ, namely chlorodyne, is not one to be recommended.

We can, frequently, tell a good deal as to the cause of a diarrhœa by inspecting the stools, which frequently contain undigested portions of food indicating the origin of the trouble. The following stools are more or less characteristic: The dark bilious-coloured stools of acute temporary diarrhœa in early summer or spring which follow some congestion of the liver—the clay-coloured stools of some chronic diarrhœas pointing to some suspension of liver activity—the frothy, bad-smelling, fermenting stools of some acute attacks of indigestion—the liquid pea-soup stools of typhoid fever and the rice water stools of Cholera Asiatica. There is one form of stool which frequently alarms people, who think they have passed a large number of worms. The stool is generally

more or less solid, with several masses of white gelatinous substance in it, each mass consisting of round stringy lumps of mucus. To the uninitiated these look very like masses of worms coiled up, but by floating the mass in water and unravelling it its true nature will at once appear. Such stools generally occur in persons of a constipated habit of body, and the mucus is derived from the large bowel which has been irritated by the long retention of fæces. I have seen large masses thus passed. The solid part of the motion is, not unfrequently, blackish in colour, from long retention in the bowel. There is one cause of diarrhœa which I have not mentioned and as it is very frequent in some persons, and exceedingly annoying and inconvenient, it may well find a place in this paper. Mental emotions such as anxiety, fear, or excitement of any cause will not infrequently bring on diarrhœa, especially in young adults of a nervous temperament. To such a one the excitement of speaking in public, the preparation for a journey, the anticipation of an examination, will bring on an attack and very annoying it is. This tendency may become very serious sometimes, and I have known it, in nervous disease, to be the chief symptom and utterly uncontrollable. If the attack is only occasional, induced by some extraordinary excitement, a good dose of Gregory followed, after it has acted, by 20 grains of bromide of potassium will frequently cure it. If it recurs, unpleasantly often, bismuth in x or xv gr. doses three times a day, with 10 grains of bromide of potash once or twice a day will be of use. Should the tendency become lasting it may become serious and calls for medical supervision. "In this form of diarrhœa the stools, though slackened, are rarely watery, and rarely contain much mucus. They may or may not be attended with pain; they are reproduced by nervous causes; they are generally worse in the earlier day, especially before breakfast, and in women they cling to the catamenial periods." (Clifford Allbutt.)

I have alluded above to the stools of bilious diarrhœa. This in India is very common at the close of the cold weather and is attributed by Indian writers to temporary congestion of the liver which thus relieves itself. I have found it to be very common in the spring time, and I believe that the explanation of it given by Indian writers to be correct—it is frequently accompanied by a dull pain in the side. Carefulness about clothing, the avoiding of chill, and a small dose of Epsom salts the first thing every morning, on an empty stomach, in plenty of warm water will generally put matters right. There is said to be a form of *malarial diarrhœa*, in which the attacks show a distinct periodicity. I have never seen it in this part of China apart from malarial fever, in the severer forms of which diarrhœa is common; it may even occur in the more malarious parts of this country and should be met by quinine in x gr. doses, in fact in a *very malarious locality* small doses of quinine, gr. iii, would be useful in many diarrhœas.

It is convenient to divide diarrhoeas into acute and chronic, including under the former those attacks which come on more or less suddenly and pass off, under suitable treatment, within a short time. As a rule a patient is far more alarmed at a sudden and fairly severe attack of diarrhoea than at one which comes on insidiously and cannot be shaken off: the former is alarming and inconvenient, the latter he thinks little of and neglects, until increasing weakness compels him to seek medical aid. Now the real facts of the case are just the reverse of this, a *chronic diarrhoea*, especially in the tropics, *being always a cause for anxiety*. As to the treatment of acute diarrhoea the only one question remains to be answered, viz., supposing after a good purge, rest, diet, etc., the attack still continues what is to be done? Well I recommend the following mixture. I have found it, by experience, exceedingly valuable, and it has this recommendation for a layman that its ingredients are *harmless*. It is extensively used in India, and is known in the army as the "Field Diarrhoea Mixture." I cannot say who was the originator of the prescription, but any chemist can make it up:—

Take of Oil of Anise	}	... .. of each half a fluid drachm.
" " Cajuput		
" " Juniper		
Pure Ether	... ..	half a fluid ounce.
* Liquor Acidus Halleri	... ..	half a fluid drachm.
Tincture of Cinnamon	... ..	up to two fluid ounces.

The dose is ten drops every quarter of an hour in a tablespoonful of water, and the bottle should be shaken before pouring out the dose.

Inland brethren, who have not got the ingredients for this mixture and cannot get it made up, will do best to trust to absolute milk diet and rest and only as a last resort fall back on chlorodyne. "Chronic looseness of the bowels originates in a diarrhoea which is permitted to continue, either from neglect or because the patient remains for a long time exposed to the original cause." To give directions for the management of a chronic flux is a much more difficult thing than your readers would imagine because it is not always possible to remove the "original cause." The first and most important thing to do is to find out that cause, and this is just what a layman cannot do. Understanding therefore that chronic diarrhoea is often the expression of a constitutional disease which only a medical man can discover I will indicate the best thing for you to do, on the distinct proviso that if the diarrhoea still continues *you must put yourself under medical treatment*, even if you have to travel from the ends of the earth. *Never neglect a diarrhoea*. Take then these five excellent rules:—

1. Go to bed and stay there till diarrhoea stops.

* Liquor Acidus Halleri is a mixture of sulphuric acid 1 part and alcohol 3 parts.

2. Apply over the belly a thick pad of cotton retained in position by a smoothly and firmly adjusted bandage.
3. Live *entirely* on fresh milk, 50 ounces in the 24 hours.
4. Take this milk in small quantities, at intervals of 2 hours, except during the 6 or 8 hours of sleep.
5. Do not drink the milk, but sip it with a teaspoon, or suck it slowly through a glass tube in which is placed a small plug of cotton to prevent too rapid ingestion.

(Dr. Patrick Morison on "*A Treatment of Intestinal Flux.*")

The second rule secures local support and rest to the abdominal organs, and will be found to be very comforting; the importance of rest I have already insisted on, every movement excites the irritated bowel to contract. Note too, my friend, that *bed* does not mean a *sofa*; long chairs and sofas are a great delusion, you cheat yourself into the idea that you are resting, when really you are every now and then getting up for something. The three last rules, giving minute directions as to how to take the milk are important. Sir Joseph Fayrer remarks "'only milk' does *not* mean milk and a biscuit." "Milk is a food, using the word in its common acceptance, and not a drink. If I might use the expression, it is a fluid solid and, in dietetics, we ought to treat it as such. It ought to be masticated before being swallowed; at all events, it ought to be ingested *guttatim* as the child ingests it. Certainly it ought never to be taken as a drink pure and simple." (Manson). By following the method laid down in the above rules "the milk is mixed with the saliva, and is presented to the gastric juice by drops, and coagulation *en masse* is avoided." If, under this treatment, the diarrhœa decreases then "as soon as the flux has ceased, or nearly so—the quantity of milk is slowly and gradually increased till as much as 120 ounces is consumed in the 24 hours." Fruit also may be added, especially if constipation is present, as it may be after the milk diet. Bananas, good ripe ones but not over ripe, are the best. "American apples agree, as a rule, very well and so do persimmons and grapes"—the last named fruit should have the skins taken off and the stones taken out. Some Chinese grapes, I am afraid though, after such treatment would have little left! *All fruit should be masticated thoroughly*, and the amount of fruit should be gradually increased watching the effects carefully. "First I order one banana; no bad effects following I add a second next day; and so on up to half a dozen, perhaps." It is important to adhere strictly to the milk and fruit diet for *at least a fortnight* after all diarrhœa has stopped. "Then, gradually, farinaceous foods are introduced, and, by and by, fish, fowl, game; and, after a long interval, beef and mutton." Should there, at any time, be the slightest return of symptoms, the milk diet must be at once resumed.

(To be continued.)

The China Medical Missionary Journal.

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JUNE, 1893.

No. 2.

THE MEDICAL MISSIONARY AND THE ANTI-FOREIGN RIOTS IN CHINA.

"Have you any idea as to the proportion of hospitals and dispensaries that were looted or destroyed during the riots? The reason I ask, is that several times I have heard missionaries remark that more missions were disturbed where medical work was carried on, than where there was no mission hospital or dispensary. The inference being, that medical missions stir up the people much more than mere evangelical work. It was also pointed out to me in proof of this statement, that the majority of the evil stories are aimed directly at the medical work. One of the missionaries above referred to expects to go home at an early date, and I would like to be able to give him a little light on this important subject of medical missions, for I do not think that such ideas should be sown broadcast among the Churches at home, if not strictly true".¹

Medical missionaries as *foreigners* had doubtless their share in the cause of the riots of 1891, but to single them out specifically as a direct cause, hardly tallies with the facts we are in a position to adduce. However we may remark, *en passant*, it has been our opinion heretofore, that the riots in question were mainly anti-foreign, and that there is now no particular reason, to put it tersely, for 'the kettle calling the pot black.' That missionaries were the principal sufferers can be generally attributed to the fact that they were the more convenient objects of attack. Be this as it may, we cannot here forego idealizing the immigration of a band of Chinese missionaries into rural England, and the reception they would meet with at the hands of our gentle country folk. In answer to the question here submitted to us, we will as briefly as we can, epitomize the several riots of 1891 giving chapter and verse for our authority. Suffice it to say with regard to the SZECHUAN riots of 1886-1890, they were entirely aimed at the Roman Catholics (who by the way do not employ medical missionaries) and were caused by the report "that the Christians had killed ten persons".²

1. Dr. Frazer Smith, Hsin Chiu, 10th April, 1893.

2. *N.-C. Daily News*, May 29th and June 5th, 1891.

(Ext. Report, *Lazarist Fathers to the French Government*.)

The YANGCHOW riot was occasioned by the dissemination of reports of the alleged ill-treatment of children at the orphanage in connection with the Jesuit mission, "one child had been boiled in a bath, etc."¹

The WUHU riot commenced with an attack against the Jesuit mission property, the missionaries having been charged with "kidnapping" them, "the graves of those buried in the compound were declared to be the remains of Chinamen cut up by foreigners." Had it not been for the determined stand made "by our gallant Commissioner and his brave staff" the Customs would have been destroyed . . . "it is without doubt owing to their vigorous and prompt action that the rest of the foreign residences were not destroyed and probably some lives lost."²

It has since been fully proved that the troubles were the work of the notorious *Kolao-hwei*.³

The NANKING riot, following on, was distinctly caused by the Ko-lao and was based on the supposition that some Wuhu priests had fled there. The following is a translation of a small placard placed on the M. E. Hospital:—

"Within ten days they will all be taken; outside men will have nothing to be alarmed about; men in foreign hongts will have nothing to be pleased about."⁴

The Methodist Girls' School was looted and fired, and further damage only prevented by the arrival of a body of soldiers.⁵

About the same time another outrage was perpetrated on a French mission at a place called WUCHOW, in Anhwei, and in this case it was proved that the disturbance was instigated by the Yamên runners of the local magistrate.⁶

The TANYANG riot seemed originally to be directed towards the officials, but culminated in an attack and general destruction of Jesuit property.⁷

The stock story regarding the cause of the WUSUEH riot was that "a foreigner had killed a child," it was here that poor Green of the Customs, and Argent of the Wesleyan Mission, were so brutally murdered.⁸

KIUKIANG Riot. Here as usual 'the children were made the occasion of the outbreak.' The Romanist orphanage within the city was the scene of the first trouble, the determined attitude of the foreigners, with the help of the sailors, stayed the excitement.⁹

¹. Ext. Correspondent *N.-C. Daily News*, 10th May, 1891.

². John Walley, *N.-C. Daily News*, 14th May, Wuhu.

³. Resumé for 1891. *The Celestial Empire*.

⁴. Ext. *N.-C. Daily News* Correspondent, 19th May.

⁵. Resumé for 1891. *The Celestial Empire*.

⁶. Resumé for 1891. *The Celestial Empire*.

⁷. Ext. Père Columbel, *N.-C. Daily News*, 31st May.

⁸. Ext. Correspondent *N.-C. Daily News*, 6th June.

⁹. Ext. Correspondent *N.-C. Daily News*, 8th June.

The WUSIEH riot commenced with the attack and total destruction of the Jesuit mission. "These evil doers have evidently orders to do what they have done—destroy so many schools without taking lives".¹ We may remark here that twenty Churches were destroyed in the two prefectures of Wusieh and Kiang-yin. On the 12th June several important missions of various denominations were looted in the usual manner, including Lazarist and Protestant establishments at WUCHEN, and the large place belonging to the China Inland Mission at Takutang. A noteworthy feature of this riot was the hearty goodwill with which the local soldiers on being sent by an official to raise the siege joined in the attack.² There are no medical missionaries stationed here.

We then read of the burning and looting of the important Jesuit Mission at SZE-KOW-HSIEN on June 26th, when a handsome chapel with a school attached, and the residences of the priests were sacrificed to the fury of the mob.³

ICHANG. Thus reads the telegram to the *North-China Daily News*, 2nd Sept., 1891:—"Riot to-day at noon, missions and all foreign property burnt."

It is perfectly clear in reference to this riot "that their favours (*i.e.* the rioters') were distributed to all foreigners with strict impartiality. It is however somewhat remarkable that the extensive mission premises of the Church of Scotland within the city remained intact. Up to the very moment of the riot, male and female schools, dispensary, hospital, not to speak of that terrible rag, preaching in the Church, both forenoon and afternoon were carried on. . . . The only people who manifested the slightest interest were the patients, who came in nearly the usual number and took no pains to conceal their annoyance that Dr. Pirie was prevented from attending to them in the ordinary way.⁴ An effort was made to spare Mr. Cockburn's house on the score of "his doing works of charity" but without avail. All the foreigners of the port were compelled to seek safety in flight except the members of the Customs staff, whose premises though threatened, were not actually attacked, which no doubt, was not due to any feeling of loyalty to the Haikwan, as a native institution, but to the determined stand made by the Customs' men themselves who held the post with rifles and bayonets right through the whole outbreak.⁵

In connection with the troubles in the north-west of the FUH-KIEN province, Dr. RIGG writes⁶ "that the riot there was occasioned by the attempt to acquire land, and threats were made against any one who sold land to the

¹ Ext. Père Columbel, *N.-C. Daily News*, 9th June.

² Résumé for 1891. *The Celestial Empire*.

³ Résumé for 1891. *The Celestial Empire*.

⁴ Ext. Correspondent *N.-C. Daily News*.

⁵ Résumé for 1891. *The Celestial Empire*.

⁶ *China Medical Missionary Journal*, Sept., 1891.

foreigners." The Zenana ladies in connection with the mission (C. M. S.,) had had most distressing experiences at Ching-ho, about a week before in the TAICHU riot.

With reference to the riots in MANCHURIA and the unprovoked and brutal attack on Dr. Greig at Kirin, it appears that a telegram had just been received announcing the anti-foreign riots in ANHUI. The disturbance was set down to the desire of the southern Chinese to drive the foreigner out of China—for it was anti-foreign, not anti-missionary—and amidst a 'kidnapping' scare, Dr. Greig was brutally maltreated as one.¹

The Mongolian Rebellion which followed on seems to have been a general license to attack the Christians as reported in a telegram from London.²

Mr. W. V. DRUMMOND of Shanghai in a most elaborate and able series of letters to the *North-China Daily News* (wherein by the way the medical missionary is very properly ignored) stated his views with regard to the riots as under:—

(1). That the greater part of Northern and Mid-China is full of disaffection, and honey-combed with secret societies.

(2). That provinces bordering on the river Yangtse are the most disaffected.

(3). That Nanking itself is the head centre.

(4). That the one object in which all the secret societies agree is the desire to destroy or drive out of China the present Manchu dynasty.

(5). That the method which these societies consider to be the most likely to enable them to effect their purpose is to embroil the present government with foreign powers, so that if a war with a foreign power should occur, a favourable opportunity for a rebellion would then arise. And that even if war was not actually brought about, the state of friction would be such that no foreign power would be likely to sympathize with, or actively assist the government of China.

(6). That no rising would take place so long as Tseng Kuo-chuan was Viceroy of Nanking, but that his removal or death, would lead to active preparations and serious outbreaks, which would take the form of attacks upon foreign property in places in or near the Yangtse valley.

(7). That the secret societies have grown, and are growing rapidly in numbers and strength; and that they include not only many officials, but some of high rank, both civil and military.

Continuing our review of the times we may here remark that the interesting series of letters written by "Spes" in the *North-China Daily News* for June 1891 attribute the riots to 'government incapacity.'

¹. Ext. 'John Ross', *N.-C. Daily News*, 15th December, 1891.

². *N.-C. Daily News*, 1st December, 1891.

In the remarkable letter written by 'A Chinese' to the same paper the 20th July 1891, the only possible attack on the medical missionary is the statement "that the whole missionary enterprize in China is but a huge scheme of charity for the benefit of unemployed professional persons from Europe and America." This charge is however answered by 'Another Chinese' in the *North-China Daily News* of August 13th who characterizes it as "outrageously absurd." In the many able letters which subsequently appeared in the Shanghai papers, no mention whatever is made of any riot being in any remote degree caused by the medical missionary work in China.

Dr. GRIFFITH JOHN thus sums up his opinion of the plan which has commended itself to the Chinese :—

"Let all the missionaries in the first instance, be frightened back to the open ports; if that succeeds, let an effort be made to drive *all* the foreigners, whether merchants or missionaries to the coast ports." This for the immediate future. It does not exhaust the scheme.

The Rev. Y. K. YEN, M.A., has courteously allowed us to take the following extract from a somewhat recently written paper :—

"Christianity has given us physical benefits in that it has established hospitals and dispensaries, trained medical students, and published medical books. This work, like the evangelistic, is prosecuted mostly in large cities. The statistics for 1890 are :—

Hospitals, 61.

Dispensaries, 44.

Number of patients, 348,439.

The favour in which this branch of Christian work is viewed is general. Many officials have shown their approval and sympathy by subscribing towards it, and by presenting complimentary scrolls and tablets. The Premier Li Hung-chang in appreciation of the services of Dr. McKenzie (surgeon of the London Missionary Society) built a hospital in Tientsin and invited him to take charge of it. Over twenty years ago YING Taotai of Shanghai (Superintendent of Customs), recognizing the virtue of vaccination introduced by Dr. Lockhart and his successors and others, started a Vaccination Institute in the heart of the city, and engaged a Chinese assistant of the London Mission, a Christian man, to be at the head of it. The late Cantonese merchant Mr. Lee Chiu-bing and his friends gave a lot and a building to the American P. E. Mission hospital, costing Mexican \$10,772, for the good done to their fellow provincials. At the opening ceremonies of the hospitals of the American P. E. Mission, and of the American Women's Mission, and of the American Seventh Day Baptist Mission here, respectively, several mandarins were present to show their interest and goodwill.

Medical students (in most cases educated gratuitously) have opened drug stores in small towns, and foreign medicines are valued everywhere by those who know about them.

The blessings of Christian medical missions cannot be told: they may be judged from the superiority of Western pathology, which is a *science* to our empirical and oftentimes superstitious medicine. Vaccination *alone* has saved millions of lives. In this respect medical missionaries are the Jenners of China, and Jenner was a benefactor.

At present it is ignorance which leads the people to favour the hospital, and to despise the Church, refusing to believe that they spring from the same source of the Love of God to men."

In a letter to ourselves dated 15th May 1893, Mr. Yen further expresses himself:—

"The hospital wherever established is largely availed of, which shows that it is in favour. Ordinarily there is no opposition to it. Certainly less than evangelistic work, simply because it does not attack that which is dear to the heart, and on the other hand because it gives benefits which our people can see, they being practical in all things. Among the Hunan pictures and leaflets there was no attack on hospitals which is good evidence of the popular feeling in regard to them. In times when the people are intensely excited, of course they would destroy everything foreign, just as in the West, mobs destroy the property of the rich indiscriminately."

The following extract is taken from the *North-China Daily News* of May 14th:—

"We now notice the troubles which arise from *the medical work*. It may seem ungracious, when so much good is being done by the medical missionaries, and such hearty recognition has been given it by some of the leading men of the land as well as by the common people, to refer to any mishaps or to imply any mistakes. But we are sure the more experienced are the ones who know more than ourselves the great need of the highest caution, and how one imprudent or unfortunate occurrence may stir a whole city into a flame of passion. We have already made mention of an incident, how when the late Governor of Shantung died in the presence of a foreign physician, sent by H. E. Li Hung-chang, riots were at once threatened against the resident missionaries, and rumours of foul play ran everywhere throughout the province. It is also generally believed that the riot in 1868 which occurred in Yangchow was hastened by a physician, who put a human foetus in a bottle and allowed it to be seen by the Chinese. A short time ago there also appeared in the papers a reference to rumours set afloat in Nanking by a physician taking out the eye of a lad, which was replaced by a glass eye, while the eye itself was kept in the possession of the physician, until the

danger necessitated its return to the lad through the local authority. Such dangers can be understood, when it is remembered that the Chinese have a superstitious fear of being buried without all the organs and parts of the body. The very giving out of pills may be viewed as a scheme with sinister aims, and the cutting off of a man's leg, if he dies from the effects, be a source of annoyance and even peril to the missionary, as we know actually to occur. The use made of the body of a dead man by Shanghai hospitals has become known to the Chinese, and magnified into a stupendous crime. These cases, however, are not frequent, and it is possible for the work to be so conducted that few evils will arise or dangers ensue, and the work will be regarded by all, as it is already by not a few, as one of the most commendable undertakings and greatest charities of the Protestant missionaries."¹

While admitting the foregoing and heartily appreciating the kindly spirit in which it is written, we must yet join issue with regard to the justice of a specific charge against the *medical* missionary. We maintain, the facts advanced by Mr. Reid notwithstanding, that the very methods of practice assigned to us cannot themselves altogether be dissociated from Chinese practice: and that it is the *foreign* element imported into the case which occasions the charge, and distinctly accentuates the situation. The very accusation itself must needs recoil on themselves, for the most authoritative work on Chinese materia medica states "that portions of the human body have valuable therapeutic properties." Dr. Macgowan tells us that "thirty-seven forms of remedies are compounded with such ingredients. That human muscles are deemed especially helpful in cases of consumption. Flesh offerings are often made by children for parents. A recent story is told of a man who cut off a joint of one of his fingers that a broth might be made for the healing of his mother. The imperial decrees, published in the *Peking Gazette*, often give *special commendation* to those who have mutilated their own bodies in order to provide remedies for sick relatives." Why then, if there exists such belief in the potency of these remedies, does not the charge, *if made in all honesty of purpose*, equally apply to the Chinaman, who receives 'special commendation' for such practices?

Our attention has been drawn to the fact that no response has been forthcoming to the Venerable Archdeacon Moule's request that we, *i.e.* the Association, should make 'an authoritative utterance' in connection with the opium question in China. *

¹ The Sources of the Anti-foreign Disturbances in China. By the Rev. Gilbert Reid, M.A.

* *China Medical Missionary Journal*, September, 1892, pp. 171 and 172.

Archdeacon Moule's 'Challenge' as our correspondent words it, was given to the Journal now some six months since, and comment is to the fore that no reply has been given. If by this it is intended to imply that we have been remiss, we may at once rejoin by stating, that whenever the opium habit has at all been touched upon in the Journal, (and many times it has been within its seven years' history) *it has been referred to in no sense other, than in terms of unreserved condemnation in all its possible phases.*

Further with regard to any collective official action being apparently lacking, we beg to reply, that the 'Declaration of Opinion' which was submitted to the House of Commons in London, contained the signatures of as many medical missionaries as could be procured at the time. To accentuate our justification, it may suffice to quote the last paragraph of the Declaration in question as it gives 'an authoritative utterance' not only sufficiently satisfactory we trust to Archdeacon Moule, but in distinct accord with the views held by the Medical Missionary Association of China. We quote: "We believe that we express the unanimous opinion of the medical missionaries labouring in China, now numbering considerably upwards of 100, when we add that it is difficult to speak too strongly of the physical and moral evil, and of the social misery which is being wrought in China by the wide spread and increasing indulgence in the use of opium."*

In Memoriam.

THE LATE REV. L. N. WHEELER, D.D.

Since the issue of the last Journal we have to note and mourn the departure of one, the influence of whose life and work was wide and deep, yet so unobtrusive that the loss will be more privately and poignantly felt than loudly and ostentatiously mourned. Dr. Wheeler was only 54 years of age when the call came, yet his life was full of earnest continuous work for the Master.

Of his early life and young manhood we know little, excepting that before he began preaching at nineteen years of age, he had acquired a practical knowledge of printing and acted as editor of a paper. This implied much constant hard work; but this experience peculiarly fitted him for much of the work he was afterwards so successful in. In his 27th year he responded to the appeal of the Methodist Episcopal Church for a man to go to Foochow to take charge of the Mission Press there. Whilst engaged in this work in 1867 he was instrumental in starting the *Chinese Recorder and Missionary*

* *China Medical Missionary Journal*, June, 1892, p. 132.

Journal, or as it was originally called and described:—"The Missionary Recorder, a Repository of Intelligence from Eastern Missions and a Medium of General Information."

In the Missionary Intelligence department of the *Recorder* for January, 1869, we read: "Rev. L. N. Wheeler and family left for Peking on the 20th inst. Mr. Wheeler's health required a change to a northern climate, and he with Rev. H. H. Lowry, who will soon follow him, will commence the North China Mission of the Am. M. E. Church." The success of his work as founder of the mission is already well known. The writer calls to mind the thankful, joyful satisfaction with which Dr. Wheeler spoke of the great proportions to which the work had grown, as seen in his visit to Peking last year.

After three years' service his health broke down, rendering it necessary for him to return to the U. S., where he remained for eight years labouring in the ministry. After that time he returned to open the new work of the Methodist Episcopal Mission in Western China, at Ch'ungking, Szchuan. At the weekly missionary prayer meeting in Shanghai, shortly after Dr. Wheeler's death, a C. I. M. brother from that region paid a high tribute to the pioneer work done by Dr. Wheeler in Western China, and the respect and love with which his memory was held by the brethren there. After having laid broad and deep the foundations for future work, Dr. Wheeler's health again broke down, and once more he was compelled to return to the U. S.

After six years' work at home he returned to China to take up the agency of the American Bible Society, left vacant by the death of Dr. Gulick. Among the many labours he undertook, one of the most congenial was the editing of the *Recorder*, which had grown in size and influence since the time he helped to launch it.

In the midst of his many labours he was called home on the 20th April, after a ten days' illness. He was ripe for the change. The simplicity and depth of his confident hope are seen in his last message to his fellow missionaries: "Tell them, Blessed be God: All is well! All is well! I am trusting in my Redeemer."

Our heartiest sympathies go out to his bereaved widow and children. We pray that they may be sustained and comforted under this sore affliction. To the great body of missionary workers who mourn the loss of such a gifted comrade, Dr. Wheeler has left the legacy of a noble example and the halloved and stimulating memory of a truly consecrated life. The leading traits in his character were his modesty and gentleness, allied to a painstaking and indefatigable industry. As pioneer in mission work, as Bible Society agent, secretary of the Shanghai Missionary Prayer Meeting, or as Sabbath school teacher he showed a marked spirituality and a tender solicitude for others.

As editor of the *Recorder* he displayed great tact, wide knowledge and an alertness in seizing important points. He also had a sagacious hold on the tendencies of things. These important points also characterize the work he published when home: "The Foreigner in China." When it appeared it was spoken of as the simplest, clearest and most complete statement of the relations of China and the Chinese to Western civilization to be found in the English tongue. It will always be valuable as the mature fruit of close intelligent study.

Much more might be said of the life and work of this most untiring yet retiring worker, but space forbids. May our life be as pure, our work as faithful and our end as peaceful as his.

GILBERT MCINTOSH.

The Rev. Professor G. P. Thwing, M.D., Ph. D.

BORN 1830, DIED 1893.

It is with much regret that we learn of the sudden death of Dr. Thwing from typhoid fever. Dr. Thwing will be re-called to many who had the privilege of meeting him at the General Conference of 1890. The late Dr. Thwing was a great traveller—a voluminous writer of a peculiarly epigrammatic style, the author of several works, mostly on the Orient, and a very eloquent speaker.

Among the many societies with which he was connected in different parts of the world may be mentioned—The Medical Missionary Association of China. Dr. Thwing's personality was distinctly impressive of a deep earnestness of purpose for the welfare of those to whom he had devoted his life. We deeply sympathize with the widowed lady, now bereft of him, who with God's blessing, brought her out of a like danger, and who, exhausted after many weary days of loving ward, himself contracts the fell disease, and dies.

In Memoriam.

JAMES GOLDSBURY, JR., M.D.

For the first time since its establishment eleven years ago, the Shansi Mission of the American Board has been called upon to mourn the death of one of its active members. About noon on the twenty-third of March, Dr. James Goldsbury of that Mission entered into the enjoyment of the rest that remaineth for the people of God. He died of typhus fever.

Dr. Goldsbury was a native of Davenport, Iowa, U. S. A. He was born in 1860. Brought up in a home where the law of Christ was the rule of life, he was early led to yield to the divine claims by surrendering himself to be a willing sacrifice upon the divine altar. Ever afterwards to him duty was a privilege and the service of God his supreme delight.

After graduating from the Medical College, Dr. Goldsbury practiced one year in the St. Barnabas Hospital, Minneapolis, Minn., U. S. A. Subsequently he took one year of post-graduate study in the Medical College of the State University of New York, in connection with the N. Y. Medical Missionary Institute. He afterwards travelled as medical guardian to a gentleman who was in ill-health. These travels were extended over England, Scotland, France, Italy, Turkey, Syria and the Holy Land. But long before undertaking these travels, Dr. Goldsbury had consecrated himself to the service of the Master in the foreign missionary field; and in January, 1889, he received his appointment under the A. B. C. F. M. and was designated to Shansi. On June 28th he was married to Miss M. Grace Fisher, of Charlestown, Mass., and early in July they left the home land for the scene of their future labors in China.

For a while after his arrival Dr. Goldsbury was the only physician in this part of the province, and there was no other doctor within 300 miles of him. Consequently he had many calls, and no call was ever made to him in vain. It was always a gladsome service which he thus rendered, done heartily as to the Lord Himself.

Dr. Goldsbury possessed excellent missionary qualifications. He took an lively interest in China and the Chinese. He was full of sunshine; always happy, always seeing the bright side, hence always cheerful. He was permitted to spend less than four years in China; but we thank God for his life here, short as it was. It was a life full of faith and of good works and lived for the glory of the great Head of the Church.

Dr. Goldsbury leaves a widow and one child; a large circle of friends now mourn the premature death of a brother beloved.—*Communicated.*

The Right Rev. John Horden, D.D.,

Bishop of Moosonee, Canada.

BORN 1828, DIED 1893.

In the far off Canadian North, where winter has but now passed, and the mighty rivers there cast out their icy freight, the burden of the Indian Camp-fire tale will be, for many a long day to come, of him who has so lately passed away. Of him, who for two and forty long years (for years are *very* long in the Pole-star lands) lived his life among them as father and friend,

pastor and bishop. To the writer from his position in the Hon. Hudson's Bay Company's service, the news of the old friend's death comes as a great shock, even as it will be one of much regret to those of his grand mission in China, who knew him.

It is not that the late Bishop Horden was our dear and valued friend that we now write of him—it is because we deem it well to tell of him to those who were not privileged to know of the noble life spent under the conditions of oftentimes hardship and privation we ourselves wot of, right well. Bishop Horden, the son of a journeyman printer and himself apprenticed at an early age to a foundry, volunteered at twenty-five years of age for missionary work in Canada, and was directed by the Church Missionary Society to provide himself with a wife as a condition of his engagement—this he did at twenty-four hours' notice—and upon his arrival at the scene of his labours set himself to work to learn the language and dialects of the several tribes of North American Indians by which he was surrounded. As a philologist, he soon became remarkable; and Cree, Eskimo (dialects of Eastern and Western shores of Hudson's Bay) and Ojibeway, were soon familiar to him. Within a very short time he was able to preach to his congregation in Cree, to compile a grammar of that strange language and to translate the Bible, Prayer book, hymn book, Bunyans Pilgrims' Progress and many others, into it.

In 1892 Dr. Horden was consecrated a Colonial Bishop, and then he turned his mechanical knowledge to account, and built considerable portions of his *Cathedral* with his own hands. He has been accustomed in his visitation journeys through his vast diocese to depend entirely on his own resources, to drive his dog sleigh, pitch his tent, to 'paddle his own canoe,' and to cook his own food; besides which he has invariably been his own tailor and shoe-maker. Not only was he a voluminous writer but he printed and bound much of his own writing. Further Dr. Horden was much interested in medical missionary work. He was truly a man of whom any church might well be proud. For year after year he patiently toiled on in the 'great lone land' travelling thousands of miles by canoe and on snow-shoes, shepherding his Indian flock with tender care, cheering his scattered colleagues by kindly counsel and fatherly encouragement, and writing home letters which stirred all hearts and nerved others to strive after like endurance and devotion. His unswerving faithfulness, his life-long energy, and his singleness of aim are a heritage of inspiration to our Church.

HOSPITAL REPORTS.

THE CHI-CHOU MEDICAL MISSION IN CONNECTION WITH L. M. S. 1892.

Trusting in the Lord your God,
Onward go :—

Are the words frequently ringing in our Compound, as the servants go merrily singing to their respective duties. We gladly select it as our motto for the year.

Although still working single handed, through the absence of my sick colleague at home, the past twelve months have been in every respect one of forward movement.

As in other missions, many patients have come to us with diseases hopelessly incurable. They have run the round of their native physicians, converted their stomachs into wholesale dispensaries, spent all their money, and, as a last resource, come to us. It is hard to see such cases leave the place, and go home to die.

Dispensary.

New patients, 3,579.
• Old patients, 5,134.

Previous opposition to foreign medicine and surgery is fast breaking down. Native doctors not only consult us, but come themselves for treatment. Most amusing and elaborate are the descriptions they give of the ailments, pointing with their long, unclean, finger-nails to anywhere but the seat of disease.

As in past years, we conduct prayers with the patients, morning and evening, and, in the afternoon, when the dressings are changed, and operations over, we have a catechising service in the wards. It is at these informal gatherings, where free discussions take place, and interest is created, that you can sow the seed of the kingdom, and get at the true spiritual condition of those whose bodily sufferings you seek to alleviate.

Three patients have been received into the Church, as direct result of medical work. These have since proved their sincerity in the Truth, by not only witnessing for the Master in their own villages, but showing a true Christian spirit, when persecuted by their neighbours.

We have made, only here and there, an excerpt from a cheerful report. The theme of the score is in Dr. MACFARLANE's closing words :—

As we pursue our daily routine of work, and sometimes become absorbed in an interesting or uncommon case, may we ever seek to follow in the footsteps of the great Healer Preacher, keeping in view the grand object for which we have come to China,—to win our patients to the Lord Jesus Christ.

“G.”

THE TONG-KUN MEDICAL MISSIONARY
HOSPITAL. 1892.

In the above an account is given of some systematic attempts to injure the work which were fortunately abortive.

We quote from Dr. KUHN's report: “Until now the troubles that have been experienced elsewhere in China have not affected us, but during the past year the waves of anti-foreign feeling reached Tung-kun, and assumed a form that was very annoying. One morning in June, unknown enemies laid down the entrails of some animal near our gate, and then went through the city, spreading the report that we had killed one of our patients, and used his brain and eyes for medical purposes. The hospital cook, when he went to make his morning purchases, was beset by eager questioners as to the truth of this rumour, but the fact of his being in our service

prevented his denials being of the slightest avail. The story was carried to the Yamên, and repeated to the Mandarin, with a request that he should order the hospital to be closed. This, however, he declined to do without proof of the murder with which we were charged, which not being forthcoming he dismissed the case. Other means of a similar character were used to frighten away our patients; as, for instance, only a few days after the events above mentioned, a dead child was laid at our door in a basket, and new reports were spread about this. At that moment it happened that we had under treatment a servant belonging to the Yamên, and he and all the other patients hastened to assure us of their confidence, and to promise that they would exert themselves when they left hospital to counteract the evil effects of such rumours as have been mentioned. On the whole, we can look back only with thankfulness to the kindness and courtesy we have experienced at the hands of all who have come under our care."

Among the out-patients presenting appearances worthy of note, was the case of a child three days old, the subject of a meningocele or encephalocele of the occipital region, the protrusion being as large nearly as the child's head itself. The mother had already applied a hair ligature to the base of the tumour, and requested us to complete the operation, but we declined.

"Brossage" as a surgical treatment for granular lids has been tried repeatedly, and has in some cases been followed by a rapid clearing of the cornea. We use cocaine as an anæsthetic. Retroverting the lid, we cut open, or remove, the largest of the granulations, and then gently brush the whole surface; following this by the application of corrosive sublimate solution, 1 in 500, with wool, and a subsequent irrigation with the same solution, 1 in 5,000. It is in the dry forms of granular

conjunctivitis, as WÉCKER has pointed out, that success by this treatment is to be expected.

A few notes regarding the case of the removal of a bullet from the back may be of interest. AH HO, with her husband and a little boy, was in a boat anchored at Chan-tsün, a village not very far from Canton, having a sum of forty taels in her possession; when a party of five armed men attacked the boat, two remaining on shore and the other three coming on board. They searched about until they found the box containing the money, and the boatman trying to resist their search was shot down with a revolver, expiring almost immediately. His wife, trying to save some clothing received the wound for which she came under treatment. The bullet passing behind her left arm caused a lacerated wound of the upper arm, and lodged in the back near the angle of the shoulder blade, where it was felt some two inches from the aperture of entry, and removed by a counter-incision. Such murders are frequent, and too often remain unpunished, none of the boatmen around thinking of interfering in such a case to arrest the robbers, for fear of the personal risks they would run.

Two children were operated on for imperforate anus. In one of them the bowel was easily reached, and the child relieved; but in the other, where a free communication existed between the rectum and the bladder, all efforts to do so failed, and a proposal to perform colotomy was declined.

Four adult patients were baptized during the year.

The usual tables are appended. Out-patients 10,694, in-patients 255, operations 262. "G."

THE MEDICAL MISSION AT T'AI-YUEN-FU,
SHANSI.

The report opens with account of progress in building a house for the resident physician

and alterations of a building for dispensary and hospital purposes.

Two patients have been admitted on probation.

Out-patients 1,205, in-patients 140, mid-wifery cases 16, visits 105. 98 surgical operations performed.

Dr. EDWARDS gives an account of a curious superstition in regard to women dying undelivered which is another instance of the cruelty of the tender mercies of the heathen. "They believe that a woman, thus buried, is transformed into a very malignant spirit, which they call 'the tiger of the grave.' This spirit is believed to return to the house where the woman died and do great harm to all the inmates. To avoid this supposed calamity, they have several expedients of their own. One is to invite a geomancer to the house, who, after sundry incantations, writes certain symbols on paper, which are put up in the house; and these are believed to effectually destroy the influence of the spirit. Another method is to deliver the dead woman at the mouth of the grave, and then bury mother and child together. They have two ways of doing this. One is to open the abdomen and uterus with a knife; the other is to place a piece of quicklime on the abdomen, and thus make an aperture through which the child can be removed. Still another method of "laying the spirit" is to place the mother, with the child *in utero*, in the coffin, and then, when the coffin is lowered into the grave, to drive a long nail through coffin, mother and child. This, it is believed, will prevent the spirit leaving the grave."

"The means taken to resuscitate a man unconscious from coal-gas poisoning is to say the least novel. His cue was unplaited, and the hair placed in a basin of water! This was supposed to be an infallible cure. Still, however, the patient remained unconscious, and I was then sent for but, by that time, he was dead."

During the year, about thirty cases of

poisoning by opium have been treated. Not a few of these have been very young children, who have found the opium when crawling about on the brick bed, the opium, made into small pellets, ready for smoking, having been carelessly left lying about. In these cases, it has been impossible to ascertain the quantity taken; but, when the child has been brought, before quite comatose, great benefit has been found from the administration, hypodermically, of minute doses of sulphate of atropia, repeated until the pupil dilated.

WESLEYAN MISSIONARY HOSPITAL, FATSHAN,
SOUTH CHINA.

Dr. WENYON reports that the year has not been uneventful. In the summer, the business people of the town combined to close their shops and ware-houses as a protest against the arbitrary and exorbitant exactions of the Chinese Custom-house. A riot ensued, in which several persons were killed, and a considerable number wounded, by the native soldiers. The officials of the Custom-house fled, the Mandarins from Canton were refused admission to the town, and for several days the street gates were closed, traffic and business being almost entirely suspended. It was deemed advisable to send the missionary's family to Canton, and to give up for a time the services at our Preaching Hall, but the doors of our hospital were opened every day as usual from dawn to dark, and it speaks well for the influence of our work upon the town that during such a time of riot and excitement no molestation whatever was offered to us.

The usual time for visits to native doctors in this part of China is in the early morning, from about 6 to 9 o'clock. This portion of time, every day except Sunday, we devote to the gratuitous healing of the poor. We spend the rest of the day in attending to our in-patients, and in

receiving ordinary patients as general medical practitioners.

Our friends at Fatshan have been making a successful trial of self-support. We give below the result in their own words.

It is now twelve years since we opened this Wesleyan Missionary Hospital in Fatshan. For the first six years, with a few exceptions, we made no charges, rich or poor were operated upon or supplied with medicine at the expense of European contributors. During the last six years we have worked on a different system. Still giving gratuitous treatment to the poor, we have tried to obtain funds for doing this by charging fees to those who could afford to pay.

We adopted this system as an experiment, our encouragement to do so being, First, its harmony with what we understand to be the plan of medical missioning enjoined by Christ, that is, to depend for our necessary resources upon those who are the recipients of our benefits, and, Secondly, our observation of the fact, that most of the suspicions entertained with regard to us and our work, and most of the rumours which have, from time to time, endangered the property and lives of missionaries in China were, in some way or other, connected with this—to the Chinese, inexplicable fact, that our dispensing of medicines was indiscriminately gratuitous.

This experiment, in Fatshan, was made by circumstances particularly difficult, but, so vast an extent of this empire remaining still untouched by missionary influence, and it being obviously impossible to greatly extend the area of our work on present expensive lines, it seemed to us worth while to face the difficulty, and practically test the feasibility and value of the self-supporting method Christ enjoined.

Our income this year, derived from the fees of patients, amounts to nearly 2,500 dollars. This sum has not only been sufficient for the working expenses of the hos-

pital, including the salary of our European House Surgeon, but has left a balance out of which the sum of 200 dollars has been paid to the Wesleyan Missionary Society, towards the expenses of its aggressive evangelical work.

There are some interesting items of work which we shall be obliged to pass over having given so much space to this interesting subject of self-support.

More than 8,000 dispensary patients with 230 in-patients have received the benefits of the Fatshan Hospital while contributing to its support. "G."

CHURCH MISSIONARY SOCIETY,
HANGCHOW. 1892.

"Among the many kinds of good work which are carried on in Hangchow for combating the evil and hastening the Kingdom of Christ, the medical mission occupies a prominent place. It is not necessary, at least in this part of China, for the medical missionary to adopt *native dress* and *native lives*, in order to get near to the Chinese, with him the difficulty is rather, how to get *far* from them. "No one is better suited to soften prejudice, disarm suspicion and make his way amongst the people, and bring to them the healing message of the Gospel, than the medical missionary." "In a benevolent work like ours, where we work from the outside to the inside, and where we have to give prominence to the life that now is, in order to reach the heart through practical kindness, a properly equipped hospital is a *sine qua non*."

"In the dispensary we passed through our hands about 10,000 new patients and had many opportunities for relieving pain and cheering the suffering." "All heard the Gospel preached, and although some were too much occupied with their trouble to think of anything else, most of them listened with attention and interest to the Gospel story, and carried it away in hand, head, or heart to their homes."

Over 600 in-patients were treated during the year, and most of them were suffering from long standing chronic diseases, which had baffled the Chinese physicians.

The success of the medical part of the work is most satisfactory when the difficulty of treatment is taken into account. For spiritual work this is our harvest field. In the wards we not only preach but practice Christianity. There we have many opportunities for closer spiritual dealing than is possible in the dispensary or in a public address. Many of the patients remain long enough with us to know the object of our mission, and when they leave they take with them in many cases, an intelligent knowledge of the Truth.

"One hundred and twenty-four poor creatures were admitted to the opium refuge to be cured during the year. Opium-smoking is a sad business, and no one is brought more into contact with its baneful effects than the medical missionary. They who say that the Chinese can smoke opium with impunity, talk pure and undiluted nonsense. Of those admitted most of them looked ill and emaciated, with a leaden pallor of the skin, which made them look more like living skeletons than human beings. It is difficult to overestimate the evil produced by the degrading vice. It produces moral and physical debasement—the opium-smoker falls an easy prey to disease—and leads to crime and ruin."

We have culled a few extracts as above. In regard to the treatment of opium smokers Dr. MAIN states:—

We can speak of a few reclaimed and renewed into decent members of society, and many wretched homes made happy.

As experience is our best teacher some conclusions arrived at by Dr. MAIN will be interesting.

We were called in to see, and called upon by, not a few of the educated Chinese and had many opportunities of introducing the subject of Christianity, and it is our experi-

ence if they are wisely approached, and the subject judiciously broached, that they listen with interest and respect.

Medical Class.—Much of our time is given to this part of our work, which we consider to be most important. I am convinced that thoroughly trained natives are urgently needed, and the amount of good they can do, if their hearts are right is incalculable.

Evangelistic.—In a work like ours where it is impossible to keep in touch with the thousands who come to us every year for treatment, it is difficult to estimate the amount of spiritual good that is accomplished, still we are satisfied that the good done is far greater than what can be represented by mere figures. At the same time we are thankful for very tangible blessings that have been bestowed by the Great Healer, after whose example, and at whose command, the work is carried on. We can speak of at least ten who were baptized during the year, as the direct fruit of the hospital. One of the patients who was baptized, is a very interesting old man. When he came to us some months ago, to enter the hospital as an in-patient, he told us that he came not so much for his disease (chronic rheumatism) but that he might hear the Gospel. His daughter had been a patient in Mrs. MAIN's ward, and had shown considerable interest in the Truth, and when she went home, she began at once to make known to her father what she had learned in the ward, and pressed him to go to the hospital, so that he might hear for himself of Jesus, who came to save sinners.

Leprosy.—During the year 14 lepers were treated. The tubercular form predominates, but both forms are often combined.

We find that all our leper patients suffer from fever, and with each attack the symptoms become worse, and the dreadful disease goes on its course, interrupted from time to time by a temporary check and slight improvement.

The essential cause of the disease is yet unknown. Under ordinary conditions it

does not appear to be contagious. Still a mucous membrane or raw surface coming in contact with an ulcerating tubercle will doubtless produce the disease. The lepers we have treated have almost all been field labourers from malarious districts, and we associate the disease with *malaria*, and believe that the poison is introduced through the skin.

Mrs. MAIN in charge of the women's ward gives some interesting particulars in regard to evangelistic work among her patients, from which we make a few extracts.

Ten years of continuous work have not been in vain; but have helped to disarm prejudice and overcome superstition, and in a great measure won the confidence of the people. We cannot estimate the good that is done by those who have received benefit from their sojourn in the wards when they go back to their homes. Through them the precious message of Salvation is carried to many distant and out-of-the-way places, and more probably, is accomplished in this way to spread abroad the Truth than we shall ever know.

In speaking of a Bible woman Mrs. MAIN throws out a kindly hint.

Her work, like all Bible women's, is very trying and difficult; and unless kept alive by the power of the Holy Ghost, they are apt to become indifferent and hopeless as to the spiritual results of it. Should we not pray more for them that the

"Might of His good Spirit go with every faithful word;

And by hearts prepared and opened be their message always heard."

Patients.

"ANNA" is the Christian name given to a blind woman who was baptized a few months ago." "From the first day of her sojourn with us I was interested in her pleasant, almost sightless face, which so quickly lighted up whenever we told her of the Lord Jesus and His power to restore physical as well as give spiritual sight. Her interest in Bible narratives and her desire to know

more about Jesus, were apparent from the first, so that we gladly kept her with us in order to teach her, and with the hope that she would believe in Jesus. How interested she became, and what a pleasure it was to teach and tell her about Him who came to give sight to the blind! One day during our little Sunday class, each of the patients was asked when she meant to decide for Christ. Three of them answered, including ANNA." She became a candidate for baptism, and Bishop MOULE, being quite pleased and satisfied with her intelligent answers, baptized her last autumn. Since returning to her daughter's home she has been witnessing in her humble earnest way for the Lord Jesus, teaching her daughter and little grand daughter the hymns, commandments, etc., that she learned in the hospital. Her neighbours also are not forgotten as they drop into the house; and we feel sure that she will be the means and medium of much blessing to them. A nephew brings her to the hospital every Sunday morning when she is able to walk so far; and one of the nurses takes her to Church; she then returns to the hospital and has dinner with the patients, returning after the class to her home, to which she is led by some one her daughter sends for her.

"Mercy."—On three other occasions she had been an in-patient for a month or two at a time, and had received a good deal of instruction during these times, but never seemed much impressed with it or inclined to let us know how she felt about her spiritual condition, although there was something about her that impelled us to "follow her up" every time she went home. She was very ill when admitted this last time, but quite softened and repentant, and acknowledged that it was fear of man that had hindered her confessing her belief in Christ earlier. She assured me that she really believed in the Lord Jesus, and that when she got well she would like to be baptized. The Word of God seemed truly to

have gained an entrance into her heart; and during the last days of her illness she was most patient and at perfect rest. As she could not recover it was thought right to comply with her wish to be baptized, so she was admitted by baptism into the visible band of Christ's followers.

Mrs. LI.—She became an inquirer some years ago after being in the hospital, but was lost sight of for some time until she returned to the hospital in the beginning of 1892. Her great difficulty in becoming a Christian, while in the service of the heathen Chinese, was quite evident, as it is almost compulsory when acting as a servant to buy idol paper, candles and incense to burn twice a month at least or oftener, and to take part in other heathen practices. But she had no other way by which she could make a living. Unfortunately we have not been able to help her much in her struggle to live a Christian life; but I think that the obstacles that have been in her way have helped her to see that *we* could not *make* her Christian, and that if she trusted in the Lord He would open her way to live as a true Christian ought. She has shown a good deal of determination in the midst of her difficulties to become a Christian. I fear we cannot always appreciate as we ought, or sympathize as we should, in the trials and temptations that beset those who are struggling to do the right thing.

"G."

THE ALICE MEMORIAL HOSPITAL,
HONGKONG. 1892.

An extract from the report will show the advance of the work as to accommodation and proposed changes.

(1). That the present building be retained intact.

(2). That two of the wards be transformed into a large out-patient department, with rooms for laboratory, museum, and other purposes that at the present time render

the operation room less suitable for its primary objects, at the same time leaving the present out-patient rooms in the basement floor free to be utilized as stores and coolie quarters.

(3). That a supplementary hospital be erected, on a higher level and in a more open situation, to accommodate the larger proportion of the in-patients, including the whole female in-patient department and all serious cases of whatever nature.

The advantages of the improvements and new buildings are set forth as follows:—

(1). Since it consists of a single line of buildings, there will be through ventilation everywhere.

(2). The male and female surgical wards, placed on the two sides of the operation room, have each direct communication with it.

(3). The female ophthalmic patients will now have a properly darkened ward of their own, instead of having to share the general female ward.

(4). There are small wards for isolation and obstetric or gynecological purpose.

The out-patient department is under the charge of a number of foreign and one native physician.

Total number of cases treated as out-patients in 1892 was 18,210.

Vaccination is practised and dental diseases are treated at special hours.

In-patients numbered 875, and are received with few exceptions without charge. 152 operations were performed under the influence of an anæsthetic.

No account is taken of the many minor surgical operations.

Daily exposition of Scripture is conducted in the out-patient room in connection with every consultation, and in each of the five wards there are morning and evening prayers with similar Scripture reading and exposition, while conversational work is systematically carried on among such in-patients and out-patients as are willing to

hear, or anxious to enquire, the way of life more fully. Evangelistic effort and professional work proceed side by side in the hospital throughout the whole day, yet all is so arranged that neither in any sense interferes with the other.

"G."

—
THE LONDON MISSION HOSPITAL,
HANKOW. 1892.

We shall confine our extracts from this report chiefly to the account of two extremely interesting cases.

In October 1891 an old gentleman, Mr. Ko, came to the hospital . . . about a tumor which had been growing for some time just below his right ear. An attempt was made to remove the growth, but parts of it could not be taken away.

An extract is given from a letter written by Dr. JOHN, probably the concluding chapter of Mr. Ko's earthly history.

"As we were passing along we met a young man just as he was coming out of his house. He had been in our hospital at Hankow some months previously, with his aged father, who was suffering from a tumor in the neck."

"The young man was delighted to see us and pressed us to enter. We found them living in a large, respectable, well furnished house. I inquired after the father's health, and he told me that he was very ill indeed, and not expected to live more than a few days. 'But, continued he, this is strange. My father had a wonderful dream last night, in which he saw you coming to visit him, accompanied by a number of people. He told me all about it this morning. He thought you had come to lead him to a better place. I will go and tell my father that you are here.' He went and his father requested him to bring me into the bedroom. I was sorry to see the old man looking so ill. I endeavoured to lead his thoughts to God. He told me that he had been doing so; I

asked him if he would like me to pray with him. His reply was 'yes.' He asked his son to raise him up in the bed so that he might join me in prayer. I would have had him rest just as he was but he insisted on being raised. I then prayed for him and I believe with him. I closed the prayer with the usual Amen. 'And that means' said the sufferer, 'such is my heart's sincere desire.' I then spoke to him of the Saviour as the one to whom he should keep looking, and of the hope I cherished that he and I should meet ere long in the better land. The old man said again, 'Such is my heart's desire.' I withdrew from that chamber of death feeling that I had been near the gates of heaven. This is the first case of the kind that has actually come under my notice during these thirty-six years. But how many cases are there over China of a similar nature? Who can tell? People come to our chapels or to our hospitals, hear the truth and return to their homes without having made a profession of faith in Christ. Their names are not on our Church registers and we do not count them among the saved. This was a surprise to me. There are many such surprises awaiting us in heaven. Let us not be weary in well doing."

This case is also reported by Dr. JOHN, and appeared in the *North-China Daily News*, but many may not have seen it, and it is worthy of circulation.

"On the 7th of last month two Chang-sha men came to the London Mission Hospital at Hankow, one afflicted with a hare lip, the other a companion. The name of the former is JEN CH'EN-SIANG It is Mr. JEN's intention to proceed to the Capital early next year, to claim certain emoluments which are due to him . . . He felt he could not appear in the Capital with this disfigurement upon him, so he came to the hospital to have it removed."

"But young JEN had his difficulties. Both he and his companion HUANG have had a good deal to do with CHOU HAN, and

they were thorough believers in all the vile reports which have been circulated by him concerning the foreigners and their doings. They very much wished to come down and see the foreign doctors; but the thought of entering a foreign house or a foreign hospital filled their souls with dread. Fortunately they met a nephew of the Marquis TSËNG, and he advised them strongly to come to Hankow, assuring them at the same time that they would be treated kindly by the foreign missionaries. At last they mustered sufficient courage to leave Hunan for Hankow. They landed on the Wuchang side of the river and tarried there for a day or two, hesitating as to what they should do. They resolved to come over to the Hankow side, and have a look at the terrible barbarians, but they returned to Wuchang without having called at the hospital. They came across the next day and timidly entered the waiting hall of the London Mission Hospital; but again their courage failed them, and they returned to Wuchang without having seen the doctor. On the morning of the 7th ult. they were at the hospital gate once more, but in great perplexity as to whether it would be safe to enter. Fortunately the gate-keeper who is a very good old man, saw them and spoke kindly to them. They asked him if the rumours about foreigners gouging people's eyes, cutting out people's hearts, etc., were true. The old man assured them that all such rumours were false, and they felt half inclined to believe him. At that moment I made my appearance, on my way to the chapel, where a marriage between two natives was about to be performed. The old man advised them to follow me, and witness the ceremony. This they were afraid to do; but one of our Hunan converts happened to be present, and he prevailed on them to accompany him. They were much surprized to see what they saw and to hear what they heard. Here was a fine opportunity for the perpetration of all the wickedness with which

the missionaries and Christians are charged. But they saw nothing of it, and, as they have told me since, they were simply astonished at the fact. At the close of the marriage service which seems to have impressed them greatly, they were introduced to me, I took a great liking to them at once, invited them to come and see me at my house, and gave them a letter of introduction to the doctor.

"Doctors MACKAY and THOMSON took the case in hand, and, to the infinite delight of Mr. JEN, they have succeeded in giving him a perfect lip. I asked Mr. JEN why he hesitated to come to the hospital, and this was his reply: 'I was afraid that if I once entered I might never come out again. I thoroughly believed that the foreigners did gouge the eyes, and cut out the hearts of men, women, and children. I now know that it is all false; and this is to be ascribed to the fact that I have seen, I believe that if CHOU HAN himself could only see, his feelings would change as mine have.'

Then he told me that in Chang-sha ninety-nine out of every hundred, at least, thoroughly "believe these reports about the foreigners and their doings. If two or three experienced missionaries could settle down in Chang-sha, and carry on their work of preaching and healing at Chang-sha as they are doing at Hankow, a great revolution would soon take place in the Hunan sentiment with regard to us. I pray that day may soon come."

"G."

FIFTH ANNUAL MEDICAL REPORT OF LIN-CH'ING STATION OF A. B. C. F. M., NORTH-CHINA. DEC. 31ST, 1892.

While admitting the excellence to which Dr. WAGNER has attained as a mimeographist (!) still for reviewing purposes, prithee, give us type. *Verbum Sapienti.*

The opening words of the report thankfully record gratitude that "the lives of our little community have been spared." So many having been attacked with typhoid.

Then with regard to evangelistic work which is next touched upon we quote:—

"More attention has been paid to the evangelistic work in connection with the dispensary than heretofore. The wisdom of this is shown in an increase of adherents, and the opening up of places for Christian work which would not otherwise have been found. Mr. CHAPIN and helper CH'í have visited the dispensary daily, striving to let some of the Gospel light shine upon minds darkened by sin and superstition, and enfeebled by the bodily ailments for which they came to be treated. Our student at T'ung-chou spent his summer vacation assisting in the work of teaching and preaching at the dispensary. Two patients have joined the Church on probation, while many others have heard the Gospel, and carried home with them tracts and portions of the Bible. One of the two referred to owes his life to the treatment he received at the dispensary. When he came, his right thigh was in a horrible condition, completely riddled by burrowing abscesses. The other is the grateful father of a little patient with hip-joint disease."

Then a paragraph gives us the doctor's plaint with regard to the treatment of hip disease, of universal applicability we imagine:—

"Seven cases of hip disease were treated during the year. Several of these patients were from the practice of one native doctor, who seems to have acquired some reputation in this line. The treatment of these cases has not been very satisfactory for two reasons: first, you cannot get the patients to do their part toward a cure by securing immobility of the joint; second, they will not listen to an operation. The best treatment found practicable so far is that advised by Dr. Jos. C. HUTCHISON, viz., supplying the patient with a high-soled shoe for the foot of the sound side and a pair of crutches."

We are then told something of Chinese

medical ethics—of one professional gentleman—"who actually came right into the foreigner's hospital to seek for patients." Though naturally we sympathize with Dr. WAGNER with such colleagues, still we must admit we rather admire the gentleman, if only for the one he did secure.

The statistics read as under:—

Statistics.

Number of new patients 1,991, of which 507 were female.

Number of in-patients 158, of which 20 were female, averaging 11 days in hospital.

Total treatment 5,464, and the operations total some 200.

Assistants.

There have been two medical assistants, and part of the time three. In addition to reading on subjects suggested by the work at the dispensary, Dr. PORTER's Physiology has been reviewed preparatory to entering on a systematic study of GRAY's Anatomy, as translated by Drs. OSGOOD and WHITNEY. The first assistant has accompanied Mr. CHAPIN on several preaching tours, at which times he treated nearly 300 patients.

"P. M."

Dr. MERRITT, of Pao-ting-fu, sends the following report:—

"I have made two short tours recently and have decided, since I was made ill in both cases, not to attempt another in cold weather until we can be provided with small foreign stoves at the out-stations. I am more and more impressed with the importance of frequent visits to our out-stations, and, next to preaching the truth, the shepherding of these new Christians is most necessary. This branch of our work has of necessity been sadly neglected for years, and can only be met by a strong force at the station.

"The second of the tours mentioned was made to the newest of our openings, Po-teh, and I was inclined to think it the most promising of all. The earnestness manifested was beyond anything I have seen in my

seven years' experience. The country and villages were also the best I have seen in China, and the outlook for a good self-supporting Church in the near future seems very hopeful.

At Neu-ko-chuang a chapel has been purchased for \$12.50, and at Wang-tu for \$50. These are paid for by contributions from natives and foreigners, and the deeds are registered at the yamên in the names of the Churches of said places. These chapels are ordinary Chinese houses, so arranged that a helper can be accommodated and the foreign missionary made

slightly comfortable as well. My present idea is that with a small foreign stove to protect one from the fumes of charcoal or hard coal, as the case may be, medical work can be undertaken at regular intervals to great advantage.

"The records for the year 1892 are as follows: Baptisms, 25, probationers, 48, deaths, 8. The medical work is much the largest on record, being 18,448 treatments. I see no reason why this should not be annually increased, as we are gaining the confidence of the people everywhere."—*Missionary Herald.*

NOTICES OF BOOKS.

The May issue of *Woman's Work in the Far East* is an interesting number, perhaps the best we have read. Glancing through it superficially, one smiles, and asks, "Is it one big interrogation point?" Haven't these missionaries found out yet the true inwardness of the Chinese girl? Is there still an unsettled question as to how these missionaries shall spend their leisure moments, and how many leisure moments they may rightfully have? No one answers the questions, and it is not our province to do so. We shall look anxiously in future numbers to see whether a missionary who plays tennis or reads Harper's is violating missionary ethics, we want to know how we can spare the rod, and not spoil the child, we shall be unspeakably grateful to the wise woman who will tell us how to make the Chinese girl speak when she won't. But there are many precious answers in this little magazine—answers to prayers—answers to unbelief, enough to make her hide her face for shame, pale unbelief. Read "after many days" ye who think it is waste of means to keep up girls' schools. Listen to Mrs. McKee: "Within the past twelve months four of these old school girls, after nearly thirty years of wandering, have been brought into the fold. Some years ago two others were found after being about twenty years out of school. Ever since their admission to the Church these have been among our most earnest, devoted Christians. We find a great difference between these former pupils, and women of the same age brought into the Church without early knowledge of the Gospel." We read the article from Sung-kiang, and we sigh, "After four years of

labor, we have not a convert from the resident women of the city. But we need only turn to 'some phases of work in Shantung.'" "It is only about thirty years since the American Baptists and Presbyterians first began work here," this on the first page, but in the fourth page we read, "that there are now in Shantung, in connection with the Presbyterian Church, 6 mission stations, 52 foreign missionaries, 660 pupils in boarding schools, 1,004 in day-schools, 3,622 communicants and a vast number of persons, who while not yet Church members, cannot be considered heathens." It is an older missionary, in newer work than that in Sung-kiang who says, "Oh! my sister workers, all over China, I wish I could encourage you with *all my heart* never to lose faith in the power of the pure, and simple Gospel . . . Let us sow the seed in *hope*, and wait with *patience* the harvest time. Never mind if it be years before the abundant golden grain appears be sure when it does come, it will be *grain*, more precious than gold, holding the self-propagating life power." Grain? Yes "garnered grains" says Mrs. JUDD and she tells of old Mrs. LIN whose neighbors thought her mind was wandering, because she kept saying, as she lay a-dying, "I am trusting Jesus, I am going to heaven." The life and death of AH-MUN, adds another to the "witnesses" who have gone to their eternal reward. No wonder "heaven seemed very near" to those who stood by her as she entered the valley of the shadow, with "the smile of triumph" lighting her face as she said, "I am so happy; I am not the least afraid; all is bright above me, and I just keep my eyes fixed on Jesus."

Bloodless amputation at the hip-joint by a new method. By Nicholas Senn, M.D., Ph. D., Chicago.

Not only is the text clear and explicit, but five admirably executed photolithographs further illustrate this new method of bloodless amputation.

The following conclusions represent the principal advantages of the operation as described by Dr. SENN, to whom we are indebted for his most interesting work:—

1. Preliminary dislocation of the head of the femur and clearing the shaft of this bone of all soft tissues down to the proposed line of amputation through an external straight incision requires less time, is attended by less hæmorrhage and shock than when this part of the operation is done after circular amputation as advised by VON ESMARCH and others.

2. The external straight incision is the same as VON LANGENBECK incision for resection of the hip-joint differing only in length.

3. After dislocation of the femur the soft tissues are tunneled with a hæmostatic forceps which is entered through the external wound on a level with the trochanter minor to a point on the inner aspect of the thigh behind the adductor muscles and about two inches below the ramus of the ischium where a counter opening two inches in length is made.

4. Bloodless condition of the limb should be secured by elastic compression or vertical position prior to tying the elastic constrictors.

5. An elastic tube three quarters of an inch in diameter and about four feet in length is grasped with the forceps in the centre and drawn through the tunnel made by the forceps.

6. After dividing the elastic tube in the centre the base of the thigh is constricted by drawing firmly and tying the anterior

constrictor in front of the anterior section, while the posterior after being drawn tight behind the posterior section the two ends are closed and then made to encircle the whole thigh, when the ends are again drawn firm and tied or otherwise secured above the anterior constrictor.

7. A long and a short oval cutaneous flap should invariably be made in all amputation at the hip-joint.

8. In preference a long and a short posterior flap should be selected.

9. The transverse section through the muscles should be somewhat conical in shape, the apex of the cone corresponding to the tunnel made by enucleation of the upper portion of the shaft of the femur.

10. Resection of the end of the sciatic nerve and ligation of all vessels that can be found should be done before the removal of the constrictors.

11. The femoral arteries should be secured by a double catgut ligature half an inch apart the one on the proximal side including also the accompanying vein.

12. The posterior constrictor should be removed first, and all hæmorrhage arrested by ligation and compression before the anterior constrictor is removed.

13. The upper part of the wound corresponding to the acetabulum should be drained with an iodoform gauze tampon and the remaining part of the wound by one or more tubular drains.

We are indebted to the eminent publishing firm of Messrs. CASSELL AND COMPANY, London, Paris and Melbourne for the YEAR BOOK OF TREATMENT FOR 1893. This work is so well known, that it is unnecessary for us to do anything other than to acknowledge the pleasure we have in the acceptance of so admirable and so critical a review of the advance of medicine and surgery for the year.

CORRESPONDENCE.

SHANGHAI,

8th May, 1893.

MY DEAR DR. GILLISON.

Permit me to congratulate you upon your return from the 'auld countrie,' and to express my sense of pleasure that you have taken over the duties of the office of Treasurer, to which you were appointed during your absence in England. You will I am convinced find them a charming relaxation, and a stimulus to other work of a less exciting character. Apart from the satisfaction of expressing to you how much I realize that my successor will promote the interests of the Association, I wish to touch upon yet another subject, and would beg to draw your attention to your copy of the Journal for June 1891, so as to simplify explanations. At page 127, you will note a correspondence between Dr. LYALL and myself with regard to a proposed reduction of the Association dues. The amendment there referred to was negatived on purely stated technical grounds, grounds which however I did not follow, but seeing that they involved a re-submittal of statement to the Association and that official changes were pending, the matter, much to the annoyance of many members of the Association, was for the nonce, dropped. But now feeling that if the desired change is to be made, it must be arranged and brought forward in this number, so that I will briefly state my reasons for again proposing the discontinuance of the present system.

(1). The fact of keeping two separate accounts consisting of small amounts many hundreds of miles apart is not only an anomaly but is perfectly unnecessary and entails a ridiculous amount of trouble. There should be one payment to one official.

(2). As to the amount to be paid, many think with me that it is unnecessarily high.

Now as the second paragraph need only come under consideration I wish to ask if you are prepared to second me so as to submit to the Association the following amendment to Article VII of By-Laws: "The yearly subscription to the Association shall be Three Dollars in advance and shall include the Journal of the Association." To take effect January 1894. And again, to avoid any confusion as to the reading of the article amended, as a whole I repeat it as under:—

Article VII (By-Laws).

"The initiation fee required from all active members shall be one dollar. There shall be no fee from honorary members. The yearly subscription shall be Three Dollars in advance and shall include the Journal of the Association." To take effect January 1894. Should this amendment be carried it will of course rest with you as to whether you wish to assume sole charge of the accounts as I did, or pass them over to the publishers. The fact that members, i.e., those who have the honour of belonging to the Association—as non-members is one, that, under the circumstances, cannot be remedied.

Sincerely yours,

PERCY MATHEWS.

HANKOW,

20th May, 1893.

MY DEAR DR. MATHEWS.

It is with much pleasure that I fall in with your views and second the proposed amendment to Article VII of the By-Laws.

With your approval I would further suggest a somewhat more extended form of amendment to the effect that the publishers

be authorized to collect the subscriptions referred to. Begging that you will submit this letter together with the proposed amendment in the usual form to the Journal.

I am, yours sincerely,

THOMAS GILLISON.

CHI-CHOW MEDICAL MISSION,

May 3rd, 1893.

DEAR DR. MATHEWS.

Your letter just to hand. Your orders shall be promptly obeyed. . . . My colleague being still at home, both medical and clerical work develop on me. Thus I glory in the miscellaneous offices of parson, doctor, secretary, treasurer, committee, registrar and general bottle washer! You will ere this have received my report for the past year and noticed in glancing down the list of cases, that eye diseases predominate. Chi-chow evidently is the hot-house for the growth and development of cataracts. During the past year, forty-five cases came for treatment. Some were not ripe for operation; others were afraid of the knife, so that only twenty-six were admitted into hospital. Of these 19 had sight completely restored; 5 no improvement; and 2 lost from panophthalmitis. In one case the patient went home on the second day, in the other, the poor fellow was so pleased at being able to see, immediately after the operation, that he removed the bandages the same evening and took a quiet constitutional outside, with the above result. Last month I had six cataract patients seated in a row, in my study, all awaiting ophthalmoscopic examination.

Regarding the method of operation, the plan of incision I invariably adopt is that of GRAEFFE's modified linear, with this exception—the incision is made in the corneal substance, and not in the sclerotic. I have tried the latter method, but partial loss of vitreous with troublesome hæmorrhage from the seat of section, has induced me never to do so again.

Just before leaving for our annual meeting in Tientsin we had a special service on Sunday afternoon in one of the wards, where I had the joy of baptizing two patients, father and son. The son came three months ago with necrosis of nearly all the carpal bones of his right hand, necessitating excision of wrist joint. He is himself a Chinese doctor, but informed me that this disease, from his standpoint, was incurable. He is now on the high road to recovery, but is still in hospital awaiting similar treatment to his right foot. About a month after the operation on his hand, we had at morning prayers, the subject of the man with the withered hand. Our friend, his face beaming with joy, remarked, "Ah, if the same Jesus were to walk into this hospital and see me lying here, He wouldn't put me on a table, give me sleeping medicine, and then cut me with knives, but He would call out, 'Lao Wên, stretch out your hand.' I would just do as He told me, and it would be healed." On the day of his baptism we had all the children of my wife's girls' school into the service besides preachers and assistants. The recollections of that service will linger long in the memories of those who were present.

Oh that we may ever keep to the forefront the object for which we have come to China—to win our patients to the Lord Jesus Christ. Let no interesting case or rare operation so absorb our time that our spiritual ardour will be thereby petrified, but may the words of that sainted missionary DAVID BRAINERD be the earnest prayer of every medical missionary in China, "Oh that I were a flaming fire brand in the hand of my God."

I am, yours,

SEWELL S. MCFARLANE.

LONDON MISSION,

Chungking, April 27th, 1893.

MY DEAR DR. MATHEWS.

I take this opportunity of writing a line to you as I have a little spare time. My wife and I have had a three weeks' holiday

on a house-boat, up to Lu-chow and are now nearing Chungking again. I expect you have often wondered why I have let a year go by and never sent you a line. Well you see the desire has been present or I would not spend a part of my holiday thus. I wished at the end of the year to make up a report of our years' medical work. Sickness removed Mr. and Mrs. WILSON, and left us alone with all the work of the station for three months and I have had no spare time to do it. The past year was a very, very trying one in every imaginable sense but the Lord graciously preserved us through it all and added blessing with it.

I am glad to be able to tell you that we have purchased a large property, which gives us an opening on to a busy street, and will provide us with hospital, dispensary, street chapel and boys' school. The three latter are well nigh finished and will be in working order very shortly: the hospital has not been touched as yet, it will require a little alteration to make it useable and a great deal to make it as it should be. Time and patience will I hope see it a fit place where many will be helped and brought to the knowledge of the Truth.

Our medical work has developed steadily and I am glad to say that this year's end sees us with two men who are seeking baptism. One was one of my earliest patients, and the treatment he then received seems to have touched his heart. The other is a young man I was called to see when we were at morning service one Sunday morn. I found crowds in the house, he having received a severe scalp wound in a brawl. A good neighbour was dabbling on some horrible dirt, and the general condition of the poor man was decidedly pitiable for he had been pitched into some cesspool. However by calling the district elder to come and keep order, and by bringing the dirt to the light, and the free use of scissors and water we got a clean exposed wound some six inches long. Coming to him next day to

change the dressings the crowd recognized the superiority of Western art to the dabbling on of more filth, and remarked that "the work was good." I took the man in our hospital and he lived there 40 days at the expense of his would-be slayers, who got the bamboo as well. He did very well. At one time I feared necrosis of the bone, but it revived and for six months he has come to our services and bought Bible and hymn book and asked for admission. By the case being a Yamén one it gets widely known and one prays that it may lead to our work and cause being advanced. One day a man brought in his son with strumous disease of his ankle. They had come some 6-700 *li* from Kwei-chow province to seek relief. After two years' suffering the lad of 19 had got very thin and his father fell on his knees asking me to help and cure him—his only son. I assured him I would do all I could, and took him in, and fed him up. I felt sure the foot must come off and told the father so. He gave consent for me to do what I thought best and when under chloroform I found I should have to remove the leg low down. He made a very good recovery except one or two small fistulous tracts which have not yet healed. The father wishing to go home for the New Year left his precious son with us till he should return. The lad has put on flesh, and generally wakened up and regularly attended our school and all the services so that he has a good knowledge of the Gospel (and may he get to know of its power to save too).

I have been more than ever struck with the power a medical mission has of drawing, and influencing, and preparing the way among the people. Its influence is unlimited, and one never knows where the work is spreading. If only we had that Power of the Spirit of God upon us that every one who comes under us would return home to talk about that, as much as the surgery and medicine is talked of. I have

felt very much of late how easy it is to let the one get ahead and forget the other, while it is for the other we have come to China. This wretched climate, and trying people, make one so irritable, and hasty, and often simply wanting to get our work done: we forget we are God's sent-ones and according as these people see us—perhaps for only once—so will they measure us and our Christ. I have not my books by me so can only give you rough figures. Last year we had over 2,000 new cases and some 5,000 old visits paid to the dispensary. In our hospital we had some 30 patients during the year. If we open only part of our new hospital we can take in 20-30 at once.

In coming up the river the other day we had a man visit us at 6 in the morning bringing a present of some sweets, &c. He is a Roman Catholic and keeps an inn at the mouth of the Hsien Yamén at Kiang-tsin. Last year chairs and boats refused to carry him, lest he should die in them, when he wished to go down to Chungking (180 li) to see the foreign doctor. He was in our hospital some time with dropsy, &c. I removed 30-40 lbs. of fluid on one or two occasions and generally got his organs into better working order. I sent him home with little hope of permanent good, and told him so. However there he was practically well before us, and well able to attend to his business. He says his "cure" has caused a good deal of talk and he tells them that we did it.

I also operated on a scholar with bare lip from this city last year. He was a nice man and did very well shewing much interest in the Gospel. On returning he called in and saw the native worker at the C. I. M. at Kiang-tsin. The other day I was called to see some patients in our guest room and found 4, with their friends, all of whom had come down at the advice of this scholar. I took three in and treated the other as an out-patient. One had a cystic tumour in the neck which came away easily and he

made a rapid and good recovery. He has gone back now and who knows what will be the result. With lots of our hospitals all over this country having incidents, and results, such as this, surely a great harvest will one day spring up to the honour and glory of our Saviour. We so want to see results, and pin them on to our name and work, not content to do the work for our Master leaving it in His hands after we have done what we could.

One more example and I will close.

We tied up the other day under the bank "by chance" to spend the Sunday. We were some 30 li below Ho-kiang Hsien. Last year two wives of a military official were seen by us, and called on us afterwards at our house. They were very nice, and quite ladies. Their house is at Ho-kiang. After breakfast we climbed up on the bank and walked a little way till we found we were near a gentleman's house and garden. They invited us in and we entered the terrace in front. The gentleman and my teacher began talking, and of course wanted to know who we were. He was told and my teacher asked if he knew where these military people lived—we did not know them. I saw that man change at once and he asked us in and got tea, &c. He had heard of their visit to us we found out. Of course he asked us to see his wife who had been ill two days. I did not know it at the time but there in our midst was a Chinese doctor who had been called over the river to attend her ladyship. Poor fellow he had to eat humble pie, and see the barbarian ride over his head.

A beautiful house and garden they had. The gentleman is wealthy, two of his brothers being in office somewhere. He himself came down to the boat for medicine and we told him of the Gospel and I gave him a tract. But it did not end there. In the afternoon he brought in another gentleman a military B.A. who lives over the river. We had a long and interesting talk together—my teacher explaining our faith. The B. A.

was a very nice fellow. He wanted me to go over and see his old mother the other side of the river. At 630 next morn to my surprize instead of my having to cross to see her she turned up in her chair on a small boat. In the night we had had a very heavy storm. I feared all our ropes would go. Surely it shewed faith in us that the old body should venture over at that time to be seen. I fear my medicine could not do much for her but I hope our intercourse may do something. They sent down all that way—some 150 miles I suppose—to Chungking to get medicine. One feels in meeting these “upper classes,” it is more or less like running your head against a brick wall, the effect is so small. Still many heads will make some impression and I am content to be one unfortunate one if the result be obtained.

I have been too busy to take many notes on any cases such as might be printed in the Journal and cannot just now. What I have told you will shew that our work is growing. You may perhaps from other quarters get many such examples of growth, and not think it worth while making use of these in the Journal. “History repeats itself.” Thank God if it does, and may it do so until all these people know the blessed sound, and give honour and glory to Him who has given us all we have. You will see how much good our three weeks’ holiday has done me, in stimulating me to write so much for you to wade through.

Yours sincerely,

CECIL J. DAVENPORT.

WUCHANG NOTES.

MY DEAR DR. MATHEWS.

There are a few notes from Wuchang in answer to your letter. It is nearly six years since I left this place and I find now on my return some important changes and the place greatly improved.

The Viceroy has put up his cotton mill

and iron works, and introduced the telegraph. Wuchang though at one time in great danger during the riots escaped being added to the list of places so disgraced, by the action of the Consuls and captains of the men-of-war in Hankow. All we are glad to say is now quiet, and mission work steadily going on.

A new mission has been started by the Swedish Mission, and the London Mission has built and opened a new hospital. The American Church Mission has purchased two more lots of ground, one by the school, giving the boys a fine play ground, and the other lot enlarging the hospital grounds.

Two more new wings have been added to the boys’ school, and two houses have been built for the native clergy.

The hospital lot still needs to be completed by buying the remaining corner lot in front, and it is hoped that before long the new hospital for men will be added to the mission’s premises.

The medical work among the women will be greatly helped on now that Miss MACRAE has joined the mission.

While speaking of the medical work Dr. MERRINS has made a very successful experiment with a bamboo boot for a cork one. Two large sections of bamboo are cut down as thin as possible and then bound together side by side with cotton cloth, a piece of leather top and bottom completes a very light though thick sole.

Some day I want to call your attention to a tree, the sap of which the natives use for ring worm, as it seems a successful treatment.

Mr. GRAVES has lately given a prize for the best native essay on Christian Hospitals. I do not know if he means to publish it as a tract.

With respect to the school I am glad to say there has been great progress. Twenty years ago we were only too glad to get any boy that would come, now we can hold an entrance examination, and besides, we now

have a large class who pay their own expenses.

Our teacher of mathematics has published a very useful little arithmetic at 12 cents per vol. He is one of our old scholars, and studied under Mr. YEN at St. John's College.

Some years ago we started a reunion dinner for the old scholars. Last year at the dinner they subscribed a sum of money among themselves, and with it opened a day school, they wish if possible to maintain a fund among themselves for some Christian mission work.

Other new things of note during the six years I might mention had I time, but I must not forget the new and handsome Church. Our dear late Bishop has gone to his rest, but the work in Wuchang with which he was so much connected, the school, the Church, and the hospital, have all grown up to their present importance during his episcopate, and from the little temporary buildings which were erected during the early years of his missionary life in Wuchang.

Faithfully yours,

H. SOWERBY.

CANTON,

May 3rd, 1893.

MY DEAR DR. MATHEWS.

Dr. SWAN loans me some old numbers and I was amused as well as vexed at the withdrawal of the very general commendation of our asylum purpose on page 216, for fear of committing our "Prot. Med. missionaries to it"—when the Conference number of the Journal 1890 already has printed the emphatic approval of these same Prot. Med. missionaries in reference to the plan of Dr. KERR.

To us in America—to medical men particularly—the delay in undertaking this form of medical enterprise is inexplicable. Dr.

KERR distinctly stated it was not a religious or missionary venture but a philanthropic one.

Very truly yours,

E. P. THWING, M.D.

[A pathetic interest cannot but be attached to the foregoing, written but six days before Dr. THWING's death. In connection with the protest here inferred, it must be borne in mind that the Conference could not altogether be representative of the individual views of the members of the Association, seeing to the fact that not one-third of its membership were present. Further to add by way of respectful surmise, we believe that the majority of those who did attend, knew at that time, as much or rather as little of the advantages of the projected scheme as the writer.—ED.]

832 EXCHANGE BUILDING, BOSTON,

March 29, 1893.

PERCY W. MATHEWS, M.D., F.R.G.S.,
Shanghai,
China.

DEAR SIR.

I am now preparing the new edition of the Inter. Scientists Directory to be issued in December.

Being desirous that your country shall be more accurately and fully represented, I have taken the liberty of asking if you can find a few moments in which to correct the enclosed names, from the last edition, and send such new ones as you think should be included.

This will greatly assist me in the preparation of the new edition. Hoping to hear from you by an early mail and thanking you in advance.

I am,

Yours respectfully,

S. E. CASSINO,
Editor.

MEDICAL PROGRESS.

OLEUM TIGLI IN THE TREATMENT OF FRACTURE OF THE BASE OF THE SKULL.

Dr. B. F. PARRISH in the *New York Medical Journal* for March 11th thus sums up a most interesting article:—

"Each and every time the oil was administered the delirium and paralysis diminished and the patient's condition was improved.

Its advantages are:—

1. It is easy to administer. Frequently it is difficult to get the patient to swallow anything at all. This is easily given on the tongue.

2. It is a powerful derivative.

At the same time the blood-vessels of the alimentary tract are much dilated and filled with blood. Both of these results so diminish the blood and blood-pressure in the brain that inflammation is allayed and the exudation absorbed.

The disadvantages of oleum tigli are:—

1. It is very apt to cause the bed to be soiled by its precipitate action. This, however, can generally be avoided by giving the oil in the morning and placing the patient on a good-sized bed-pan and keeping him there until the bowels move, which time will vary usually from half an hour to two hours. Enough oil should be given to produce free purgation.

2. Its irritative action upon the alimentary canal. I do not believe its action upon this tract is so deleterious as to cause much trouble when the oil is given in two-drop doses not oftener than each second or third day. Of course it is not to be given oftener than the symptoms demand. I have frequently given the remedy in cases of delirium tremens without bad effects

upon the digestive organs. Indeed, I invariably order two or three drops of the oil in a little pulverized sugar or gum acacia in beginning delirium tremens, and also after the symptoms have become well established, when I do not see the patient before that time. I have always secured the happiest effect with but little lasting irritation. It is wonderful how the cerebral congestion is relieved, and how the nervousness or delirium disappears under this treatment. So I feel that, compared with the beneficial results, the evil effects are extremely insignificant. I do not think any of the milder agents are to be compared with the oil."

QUININE IN DISEASES OF THE RESPIRATORY ORGANS.

429. IGLESIA (*Der Kinder-Arzt*, October, 1892) says that quinine proves useful:—

1. In all cases of larvated asthmatic affections of a pernicious character.

2. In broncho-pneumonia, quinine in combination with preparations of ammonia, alcoholic remedies, etc., is indicated.

3. In whooping-cough quinine frequently yields good results.

4. In pulmonary hæmorrhages and pulmonary congestions the salts of quinine act as hæmostatics.—(*Condensed Extracts.*) *Canada Medical Journal.*

BLOOD IN URINE.

Differentiation between Vesical and Renal Hæmorrhage.—ULTSMANN (*Deutsche medicinische Wochenschrift*, No. 32, 1892) uses the following method to distinguish vesical from renal hæmorrhage:—

He washes out the bladder, then injects 50 grammes (f oz. XIIss) of a 1½% solution of iodide of potassium. Fifteen minutes

later he examines the saliva for iodine. If it is found, there must be epithelial defects in the bladder, i.e., the hæmorrhage as well as the absorption must have taken place in the bladder, as intact vesical mucous membrane is not capable of absorption.—(*Ib*).

CAN COCAINE BE DISPENSED WITH?

Dr. K. L. SCHLEICH re-asserts that absolute local immunity from pain, even during protracted operations, can be obtained without resorting to general narcosis of the patient, so that a sufferer may remain perfectly conscious during the amputation of his hand or foot, or exposing himself to the danger of syncope ever present in the operating room. Sub-cutaneous injections of a solution of sugar or salt, or even of simple cold distilled water, will produce exactly the same local anæsthetic effects as cocaine. This discovery has already borne the test of numerous experiments, and will be tried in Vienna on a larger scale. The explanation of the phenomenon is simple: Local insensibility to pain is caused in the case of cocaine by purely chemical changes; while cold water acts mechanically by means of high pressure and low temperature. Under the influence of the high pressure and sudden lowering of temperature the blood and lymph are driven from the region operated upon to places where the pressure is less. The tissue is thus deprived of its supply of blood, and temporary paralysis of the nerves results. It is affirmed that the importance of this discovery is all the more undoubted seeing that if, in a given case, cold water alone should fail to produce the needful degree of insensibility, a weak and absolutely harmless solution of cocaine would prove certainly efficacious.—*Medical Record, New York*.

SMELLING-BOTTLE FOR COLD IN THE HEAD.

Dr. TUCKER WISE has found the following highly satisfactory: Fill a wide-mouthed ounce bottle with coarsely pounded car-

bonate of ammonia, and add eucalyptia, dr. ss., dissolved in spirits of chloroform (double strength), dr. jss. This bottle should be applied to the nose as ordinary smelling-salts every half-hour, and the pocket-handkerchief be used gently when absolutely required, not violently trumpeting the nasal organ on every occasion that the passage becomes blocked. With the addition to this simple treatment a hot foot-bath may be taken, and steam inhalation at night.—*Medical Record, New York*.

CHOLERA AND CHLOROFORM.

Dr. DESPREZ, after an experience of twenty-five years, recommends a compound mixture of chloroform in this disease. He finds (1) that his mixture calms the gastric spasm which prevents the ingestion of medicine and food; (2) that it actively stimulates the functions of the skin, which are so closely allied to those of the alimentary canal and kidneys; (3) that he can introduce into the economy, when absorption is possible, substances capable of re-establishing the normal composition of the blood, and the remedies destined to render it more fluid, and which fit it to enter the capillary circulation and make it susceptible to hæmatosis. His formula is: Chloroform, 1; alcohol, 8; acetate of ammonia, 10; water, 100; syrup of the hydrochlorate of morphine, 40. Of this the dose is a tablespoonful every half-hour. He claims, by this treatment, 80 to 90 per cent. of cures, laying special emphasis upon the toxic effect of chloroform upon the micro-organisms of this disease.—*L'Union Médicale (University Medical Magazine)*.

WERNER (*Medical Record, New York*) again recommends chloroform in typhoid. He says: "After an experience covering one hundred and seventy cases. At first I give a dessertspoonful of a one per cent. solution every hour or two, day and night.

In the period of decline only every two or three hours. It appears to diminish the diarrhoea and meteorism."

URTICARIA OF CHILDREN.

R. Chloral hydrat.,
Pulv. camphoræ,
Pulv. gummi arabic āā dr. j.
Triturate to liquefaction and add
Cerat. simplicis j.
M. S.: Apply topically.—*L'Union Méd.*

ACUTE INFLAMMATORY EAR-ACHE.

The *New York Medical Journal*, October 29, 1892, gives the following abstract of a paper, bearing this title, read by Dr. J. H. CLAIBORNE at the meeting of the Medical Society of Virginia:—

"He alluded altogether to cases of acute catarrhal otitis media, such as were caused by the causes of acute colds in general. He did not approve of opening the drum of the ear, unless it was done by an expert. He recommended instead the use of the Eustachian catheter and gradual long-continued inflations three or four times every few hours to empty the middle ear. He did not apply silver nitrate in acute cases, but in subacute cases he applied a four-per-cent. solution of this salt. Sometimes DOBELL'S solution sprayed into the nose and throat acted well. He placed his confidence in the following plan of treatment:—

"1. Hot ten-per-cent. solutions of cocaine instilled into the outer ear, retained from five to ten minutes. 2. Hot solutions of boric acid instilled into the outer ear, while spongio-piline soaked in hot water was applied over the whole ear-surface. Hot salts might be used. 3. Inflation by the bag and by the continuous method with the Eustachian catheter. 4. The administration of a drastic dose of Epsom salts.

"After the acute stage was passed, blisters behind the ear might be useful, but they did no good during the acute stage."—*International Medical Magazine.*

THE PERIOD OF INCUBATION OF MUMPS.

JESSOP (*Brit. Med. Jour.*, June 4, 1892) reports a case of a boy who was brought in contact with a person recovering from mumps on March 17th. On April 19th, having been in perfectly good health during the interval, he developed a typical attack of mumps; no other exposure was known. On the day of the onset of his disease—April 19th—his two sisters kissed him. They were then removed and did not see him again. Twenty-one days later—on May 10th—they also were attacked with mumps. This places the period of incubation in these cases definitely at three weeks. All the children were perfectly well during the interval between the exposure and the development of the disease.—*New York Medical Journal.*

Dr. P. PARR THOMPSON relating his brilliant results with sulphate strychnine hypodermically in cases of collapse in typhoid fever due neither to perforation nor hemorrhage, asks whether this treatment "has been previously used and recorded." He is thus answered by Dr. I. KAUFMAN: "Allow me to notice in this connection that Dr. MANUEL DOMINGUEZ, in his article on "Typhus," in Hare's "System of Practical Therapeutics," says: "If profound prostration and collapse supervene, . . . sulphate of strychnine hypodermically is the remedy to be employed. . . . I can highly recommend this method," etc.

CHOLERA INFANTUM AND DIARRHŒA.

Pure air to breathe and pure water to drink will often work wonders in a very short time in many cases. Take the patient out of doors on a cot under a tree, and give the purest water possible. Wash out the bowels with boiled water. Feed on barley water and whey for a day or two. Keep in open air as much as possible. Don't give much medicine, but depend on making the child clean inside and out.—*Dr. Musgrove, Med. World. Dietetic and Hygienic Gazette.*

DYSENTERY IN NICARAGUA.

(Therapeutic Gazette, December 15, 1892.)

By Dr. JUDSON DALAND.—There are three varieties of this disease met with in Nicaragua,—the malarial, the endemic, and the epidemic. Of these three, by far the most common is the malarial. The prodromal symptoms are malaise, pain in the back, in the head, and in the umbilical region, shooting toward the pubes. Mild cases show slight febrile and circulatory disturbances. In the more severe cases there is a moderate elevation of temperature, varying between 102° and 104° F. The stools are at first composed entirely of pure mucus. They are small in quantity and often attended with tenesmus; soon the mucus is streaked with blood.

Acute hepatic congestion and acute hepatitis, associated with jaundice, are not infrequent complications. Hepatic abscess is rare. Dr. BERMUDEZ, who has had a great deal of experience with these cases, has found that the following treatment is the most successful: For an adult, six grains of quinine morning and evening in conjunction with

R Ammonii chloridi, gr. v;
Pulv. ipecac., „ v;
Tinct. opii, gtt. x-xv.

Sig.—To be repeated every two hours.

In the way of food nothing is permitted except milk, or milk and lime-water, to which sago may be added.

Dysentery is prevalent at all times in Nicaragua, and is one of the most common diseases to which the natives are subject.

TREATMENT OF BURNS IN CHILDREN.

Dr. WERTHEIMER says that the absorption of some poisonous product would appear to be the most probable cause of death in burns (*British Medical Journal*). This poison has been said to be a ptomaine not unlike muscarine in action. Ointment-like applications are more efficient than dry ones, although the latter have some advan-

ages, such as not requiring frequent change, etc.; but lymphangitis is more often observed. The object of treatment is to apply some anodyne and antiseptic agent, and to lessen the irritability of the nervous system. Iodoform vaseline is among the best ointments, but the author does not use it in children, owing to the danger of intoxication. Carron oil is a valuable anodyne application, but it is without antiseptic properties, hence the author adds thymol to it (0.05 to 0.10 per cent). Another combination is an ointment containing bismuth subnitrate and boracic acid, with lanoline and olive oil. The author recommends thymolized carron oil for the first two weeks, and then the above-named ointment, or the latter may be used from the first. Morphine, and sometimes chloral hydrate, may be required internally, but in children under two years they are best avoided. Stimulants are more often needed, even apart from the severe collapse which, in adults, requires prompt treatment.

NOTES ON THE CARBOLIC ACID TREATMENT OF TYPHOID FEVER.

From 1889 until 1892 I have treated 49 cases of typhoid fever, 39 by the ordinary method and 10 by the carbolic acid pills recommended by Professor CHARTERIS.

In each case the patient was isolated, the maintenance of the recumbent position was insisted on, and milk diet was ordered to be taken at stated intervals. Until my diagnosis of typhoid fever was certain I did not prescribe any medicine, but when I was satisfied the case was one of this fever I prescribed a carbolic acid pill—2½ grains—to be taken thrice daily, its effects being carefully watched, special attention being directed to the urine. When the temperature was reduced, which usually occurred within three days of their administration, two pills were given, one at night and one in the morning. When the morning and evening temperature became normal only one was administered for two days.

In 4 cases there was a relapse after the pills had been discontinued for several days, and when this occurred one, two, or three pills were given daily, as the temperature and other symptoms demanded. When the patient improved they were gradually discontinued.

After the temperature had been normal for a week the milk diet was supplemented by light food, as white fish, beef tea, chicken soup, arrowroot, and corn-flour, and, as the patient's recovery progressed, solids were allowed.

The ordinary method of treatment consists mainly in strengthening the system by appropriate diet and by prescribing for urgent symptoms. The carbolic acid treatment strikes at the root of the fever by the destruction of the micro-organisms which are the cause of the malady. In the cases so treated the fever was cut short, no grave symptoms, as hæmorrhage or perforation, ensued, and the process of recovery was quick and attended by no wasting.

My opinion is that the efficacy of the carbolic acid treatment cannot be questioned and I am certain, if adopted early, it would prove, in an epidemic of typhoid fever, a preventive as effectual, or more so, than that of vaccination in small-pox.—H. RODGER SLOAN, M. B., C. M., Galashiels. *British Medical Journal*.

Apropos of the foregoing we take the following extract from the same Journal of a different date:—

CARBOLIC ACID PILLS.

Professor CHARTERIS, in an article upon the physiological action and therapeutic use of carbolic acid in typhoid fever has shown that the emetic effect of this acid upon the stomach can be minimised by administering it in the form of a pill coated with keratine. Mr. JOHN McMILLAN, chemist, 17, Great Western Road, St. George's Cross, Glasgow, has sent us a specimen of carbolic acid pills made in accordance with the suggestion of Professor CHARTERIS. We find that these

pills are not affected when placed in an acidified solution of glycerine of pepsin, but they immediately break up in an alkaline pancreatic solution. The pills have a finished appearance, the keratine coating being very perfect. They are firm enough to retain their shape, but a slight pressure with the fingers is sufficient to break up the mass; when thus disintegrated the odour of carbolic acid is well marked. That the acid is active and uncombined is perceived by the characteristic pungent effect produced when a small portion of the mass is applied to the tongue.

THE USE OF MENTHOL IN PRURITUS.

(Le Menthol contre le Prurit. *Bulletin Général de Thérapeutique*, July 23, 1892.) Par M. COLOMBINI.—The author, after numerous careful experiments with menthol in diseases of the skin associated with pruritus, thinks it of distinct value. Excluding parasitic affections, in which pruritus is symptomatic only of the presence of the parasite, he finds menthol of much value in those cases where the pruritus is associated with more or less dermatitis. In these cases menthol may be combined with medicaments likely to be of service in relieving the latter, such as zinc oxide, bismuth subnitrate, or salicylic acid. In pruritus of a neurotic character some relief may be expected, but the results have not been so satisfactory. Menthol may be employed where no ulcerations exist, in the strength of five or ten per cent. of the solvent or ointment. Its effect on the superficial nerves, producing first the sensation of heat, followed afterwards by cold, is sometimes disagreeable, and interferes with its application over extensive surfaces.

SEA-SICKNESS, AND VOYAGING FOR HEALTH.

Dr. THOMAS DUTTON, in his little book (third edition, London, 1892), acknowledges that there is no absolute specific for sea-sickness, but claims great advantages from

the preparatory treatment, consisting of a restricted diet for fourteen days, a laxative pill, saline water before breakfast, and bromide of ammonium three times a day. The preliminary diet for an invalid should be chiefly of bovine, tea made specially, and hard biscuits. Dr. DUTTON advises the voyager to have his own tea made by allowing boiling-hot water to remain on the leaves only four minutes. In the acute stages of sea-sickness, one drop of pure chloroform in two ounces of seltzer-water every half-hour, and a mustard-plaster placed over the gastric region for fifteen minutes, are found to give the best results. Champagne is to be given only in the later stages, for the depression. Ginger-ale is advised; bottled stout is condemned.

Eczema without oozing Veiel treats with dry cold, such as is secured by an ice-bag wrapped in cloths. Glycerine jellies are also advised. In weeping cases dusting powders are best. In chronic eczema salicylic soap plaster, and where the nervous system is involved tar upon patches which are dry. A tar ointment may be gradually increased from one to fifty per cent.—*Medical Record, New York.*

CLEANING SPONGES.

Mr. W. J. HENSON (analytical and dispensing chemist, Upper Norwood, S. E.) writes to suggest the following method of cleaning sponges for surgical use. The dirty sponges are placed in a large mortar or earthen-ware bath, with just sufficient commercial hydrochloric acid (strong) to cover them, and squeezed well out with a pestle several times; then transferred to a bath of running water under a tap, and all the acid, etc., well washed out. When properly done the sponges are quite sweet and clean, and retain all their elasticity and absorbent properties.—*British Medical Journal.*

Cocaine is best dissolved in a one-half per cent. boric acid solution.—*Squibb.*

PROPER METHOD OF APPLYING OBSTETRIC FORCEPS.

1. Anesthetize the patient and place her in proper position—buttocks well over the edge of the bed, and each limb supported by an assistant.

2. Ascertain the position of the head, introducing within the vagina two or three fingers, or, if necessary, the whole hand.

3. Apply the blades of a HODGE type of forceps to the sides of the head, with the concave edge directed toward the occiput. If, for any reason, this cannot be accomplished, withdraw the instrument, and substitute a SIMPSON (or ELLIOTT), passing the blades to the side of the pelvis. While making traction with this method, watch for anterior rotation of the occiput, and encourage it in some cases by re-applying the blades to better advantage.

4. Make every effort to secure antiseptic condition during the operation. The fingers, hands and forearms of the operator, the external genitalia and vagina of the patient, the instruments and the hands of the assistants, should be clean and aseptic.—*Amer. Jour. Obstetrics.*

(270) COCAINE AND THE MILK SECRETION.

GUENEL (*Gaz. Med. de Nantes*, February 12th) reports the following observation. In treating a case of cracked nipple with a 1 in 50 solution of hydrochlorate of cocaine, he found that the secretion of milk was stopped by the application. The breasts became flacid, and the nipples lost their erectility. The functional activity of the breast was restored on discontinuing the use of cocaine.—*British Medical Journal.*

ALUM OIL.

This is a new drug of an astringent, antiseptic nature, and is described as a naphtho-sulphate, containing five per cent.

aluminium and fifteen of sulphur, light reddish powder, non-hygroscopic, easily dissolved in cold water, but the solution is cloudy in warm water. After a short time in air the powder becomes dark from its reducing power. It is acid, like all the aluminates, in reaction; it deposits albumin, which is re-dissolved by an excess of the latter, more particularly the gelatine series. This property is held to be of service in deep purulent discharges. Its antiseptic properties as tested seem favorable. A one per cent. solution killed the spores of anthrax, pyocyaneus prodigiosus, etc., within twenty-four hours, which classes it equal to sublimate in its germicidal power. A solution of 0.1 per cent. retards the growth of anthrax, cholera, pyocyaneus prodigiosus, staphylococcus germs in cultures. Small doses, however, can be repeated for any length of time without any adverse symptoms. It has been used with beneficial effects in surgery, in discharging serous surfaces, chronic purulent abscesses, and stubborn fistula. Endometritis, gonorrhœa, colpitis, etc., are rapidly benefited by its application. In dermatology there seems to be no end of cases where the improvement was rapid and efficacious.—*Medical Press.*

VOMITING OF PREGNANCY

Has been controlled in a case of WEIL by the exhibition of about a grain of menthol, or ten drops of a twenty per cent. solution in olive-oil dropped upon finely powdered sugar.—*Medical Record, N. Y.*

BRIGHT'S DISEASE,

SEMMOLA says, as a result of forty-two years' experience, is best treated by milk, which is at the same time the typical food for this condition.—*Ib.*

MEMORIZING DOSES.

Dr. G. A. WIGGINS gives the following rules: 1. The dose of all infusions is 1 to 2

ounces, except infusions of digitalis, which is 2 to 4 drachms. 2. All poisonous tinctures 5 to 20 minims, except tincture of aconite, which is 1 to 5. 3. All wines, from $\frac{1}{2}$ to 3 fluid drachms, except wine of opium, which is 5 to 15 minims. 4. All poisonous solid extracts you can give $\frac{1}{2}$ grain, except extract of calabar bean, which is $\frac{1}{12}$ to $\frac{1}{4}$ grain. 5. All dilute acids, from 5 to 20 minims, except dilute hydrocyanic acid, which is 2 to 8 minims. 6. All aquæ, from 1 to 2 ounces, except aqua laurocerasis and aqua ammonia, which are 10 to 30 minims. 7. All medicated syrups, you give 1 drachm. 8. All mixtures, from $\frac{1}{2}$ to 1 fluid ounce. 9. All spirits, from $\frac{1}{2}$ to 1 fluid drachm. 10. All essential oils, from 1 to 5 minims.—*Pharmaceutical Record.—Ib.*

AN IMPROVED ASPIRATOR.

Dr. SMITH said an aspirator which anyone could make had been first used by him during the civil war. Take a quart bottle, a tightly fitting cork, pierce the latter with a glass tube, attach to this one end of a rubber tube and the other end to an aspirator needle. Put a drachm of ether into the bottle. Put in the stopper, set the bottle into hot water, and when the ether had become vapor, take it out of the water, introduce the aspirator needle, and as the ether condensed on becoming cool, it would form almost a complete vacuum in the bottle, so that nearly a full quart of fluid would be drawn into it.—*New York Academy of Medicine Society Reports.—Ib.*

SUBCONJUNCTIVAL APPLICATION OF COCAINE FOR EYE OPERATIONS

Is discussed by Dr. KALLER (*New York Medical Journal*, January 7, 1893, who says: "First I instil a few drops of a four per cent. solution and wait several minutes, after which the instillation is repeated. Now I insert the speculum and, by means of a sterilized hypodermic syringe, inject a

few drops of a two per cent. solution of cocaine under the conjunctiva, next to that part of the cornea where I intend to make the section. This will be the upper part in most cases. The solution has been sterilized previously by boiling it, and the hypodermic syringe by rinsing with alcohol and then with a two per cent. carbolic acid solution. After the injection the speculum is removed, and one has to wait from five to ten minutes for the artificial œdema at the place of injection to subside, as it possibly would be in the way of the knife. If it is slow to disappear, gentle rubbing will hasten it. The anesthesia thus attained is complete, and will contribute to diminish that percentage of prolapse of the iris that still adheres to our statistics of cataract extraction."

CHLORO-ANÆMIA.

Hot Air Baths.—TRAUGOTT (*Wiener Medicinische Presse*, August 14, 1892) obtained excellent results in 15 cases of chloro-anæmia, with hot air baths . . . He describes his method of administering them, but the following description appended by the Editor of the *Medical Record* is much simpler: "Place a large alcohol lamp upon a cane-bottom chair, cover it with one part of the elbow of a common stove-pipe, introduce the other open end under the bed-clothes, and very soon the patient will be enveloped by an atmosphere heated to 150 degrees."

We now quote from TRAUGOTT: "During the bath, cold applications or an ice-bag are placed upon the patient's head."

After 19 to 42 such baths, the patients were well. The hæmoglobiu, the specific gravity of the blood, the number of red corpuscles and the weight of the patients had successively increased; cardiac irritability, anæmic bruits, febrile attacks and neuralgic pains had diminished or disappeared. Disturbances of menstruation and other ailments dependent upon chloro-anæmia also disappeared."

HOW TO POULTICE THE EAR.

Poulticing the ear may seem to be a simple operation, but there is nevertheless a right and a wrong way of doing it, and it appears that the wrong way is the one usually adopted. Dr. BUCK says that while heat is one of the best remedies in painful inflammations of the middle ear, and the poultice is one of the best methods of applying heat, as usually put on the poultice has little effect. What should be done, he says, is first to fill the external auditory canal with lukewarm water, the head resting on the unaffected side upon the pillow. Then a large flaxseed poultice, is applied over the ear as hot as it can be borne. The column of water is thus kept warm and acts as a conductor of heat between the poultice and the inflamed surface.—*Medical and Surgical Reporter. The Dietetic and Hygienic Gazette.*

TREATMENT OF HEMORRHOIDS.

ROSSOLO (*Annales d'Orthopédie*, tome vi., 7 année, No. 2) warmly recommends chrysarobin in the form of a suppository in the treatment of hemorrhoids. The suppository is made up as follows:—

R. Chrysarobin,	gr. i.
Coca-butter,	" xxx.
Iodoform,	" ½.
Extract of belladonna,	" ⅓.

This treatment is also advocated by MACDONALD, who reports the cure of a most obstinate case in fourteen days.—*The Therapeutic Gazette.*

SPRAINED ANKLE.

Douche with warm water, 112° to 115° F., for ten to twenty minutes. Then apply, over thin layer of cotton, plaster-of-paris roller bandage (three-inch-wide SCHORSE's, or improvised with good dental plaster rolled in crinoline) evenly from the toe well up the calf of leg.—*Hot Springs Medical Journal.*

ECZEMA.

Dr. BULKLEY recommends

R. Tannic acid, dr. i.

Carbolic acid, gr. x.

Vaseline, enough to make one ounce,
as especially useful for papular and ery-
thematous eczema.

Dr. GEO. H. FOX uses in dispensary
practice, for papular eczema and weeping
eczema in which the infiltration is slightly
marked, the following :—

R. Salicylic acid,	5 parts.
Subnitrate of bismuth,	25 "
Starch,	25 "
Vaseline (by weight),	65 "

These are both good formulæ; a third
may be added :—

R. Salicylic acid,	gr. xx.
Boric acid,	" xxx.
Oxide of zinc ointment,	oz. iv.

—Dr. C. R. BARHAM in *International
Medical Magazine*.



NOTES AND ITEMS.

We are pleased to understand from a letter taken from the *Scotsman* and republished in the *Shanghai Mercury* of the 8th May that a settlement has at length been reached with regard to Dr. GREIG's case. The terms of settlement are as follows: The re-issue at Kirin of the Emperor's proclamation of June 13, 1891 respecting Christianity. The punishment of all culprits. The payment of pecuniary compensation of the sum of \$5,000, and a further sum of \$6,276 claimed by Her Majesty's government on behalf of Dr. GREIG, or in lieu of the latter sum a site for a missionary establishment at Kirin. From a letter written by Mr. JOHN GREIG J. P. to the Earl of Rosebery we take the following extract: "It is very satisfactory to be able to inform your Lordship that Dr. GREIG is now settled in Kirin, that on his first visit after his return he was received in the most friendly manner, that the Governor General had expressed his regret for the assault made on him, that several mandarins and other gentlemen of influence had waited on him for medical advice, that he had received every assistance in securing the lease of a suitable house, and that he was looking forward very hopefully to the carrying on of his beneficent work in that large city in North China."

The Royal Library of Copenhagen possesses a book entitled the "Flatobogen" which has never been translated. It contains the history of the kings of Norway, written on parchment by two monks in 1370-80. The "Flatobogen" proves that LEIT the Happy, son of ERIC the Red, discovered America in 1000. This manuscript was requested to be lent to the American government to be shown at the Chicago

exhibition. A man-of-war was to have gone to Copenhagen to take charge of the precious book, which was to be insured at £20,800. At the last moment the Danish government repented, and will not send it to America, but lending in its place photos of the valuable manuscript.

The speedy return of Dr. MARY FULTON and Miss HARIET NOYES is anticipated with satisfaction. Dr. BLISS has returned from Hainan and reports the improved health of Mrs. GILMAN and Mrs. McCANDLESH.—'M.' in *May Recorder*.

We are pleased to note in the *Recorder* the opening of the WILEY GENERAL HOSPITAL, and to congratulate its Superintendent Dr. J. J. GREGORY. We are told that a fine class of medical students has been selected, and, "under the skilful management of Dr. GREGORY the WILEY GENERAL HOSPITAL can scarcely fail to prove a potent instrumentality for the extension of the Redeemer's Kingdom throughout this part of China.

On the 12th instant the Presidents of the Imperial College of Physicians at Peking, held the biennial medical examinations of candidates desiring to enter the College and become members of the faculty. About fifty "medicos" presented themselves, but only about ten were admitted.—*The Shanghai Mercury*, April 21st, 1893.

At the literary examination held at Chao-chow-fu in Kwantung a child of eight years of age was the third in the list for the *Sui-t'sai* degree—163 were successful out of 4,600 candidates.

While exhibits are pouring in for the great World's Fair, Captain BORTON is arranging the arena lately occupied by BUFFALO BILL, for his "Great World's Water Show." This Water Show which is quite unique in its way, will consist of all kinds of water games. There will be water tobogganing and water foot-ball—well called extraordinary as the players will run on the surface of the water in pneumatic shoes—and just before the opening of the exhibition Captain BORTON proposes to walk on the Thames with his whole company from Chelsea to London Bridge.—*The Lady*.

With regard to the historical aspect of the introduction of opium into China by the English, we have always contended it was not so. The *Celestial Empire* of Shanghai thus exactly expresses our views: "There is now a whole body of evidence that opium was manufactured in China long before the first English factory was established in India. It was entered in the Chinese tariffs as far back as 1589; the Portuguese carried it to China long before the English flag was seen in the China seas; and when the East Indian Company shipped it there they did so in response to a demand that had long existed, and that had been freely met by the home product and by foreign supplies. Coming down more nearly to our own days, there is one living witness in whose presence it must have required considerable hardihood for the anti-opiumists at Mr. BATTEN's meeting to assert that opium is forced upon the Chinese. Mr. LAY, who was Chinese Secretary to Lord ELGIN's mission at the signing of the Treaty of Tientsin, has put on record what actually happened on that occasion. The allegation, be it remembered, is that Indian opium is forced on the Chinese against their will. And this is what Mr. LAY says: "When I came to opium I enquired what course they (the Chinese negotiators) proposed to take in respect to it.

The answer was, 'We have resolved to put it into the tariff as foreign medicine.' I urged a moderate duty in view of the cost of the collection, which was agreed to. This represents with strict accuracy the amount of the 'extortion' resorted to. The Chinese government admitted opium as a legal article of import, not under constraint, but of their own free will, deliberately." The late Mr. LAWRENCE OLIPHANT, the Secretary to the Mission, confirmed this statement. The evidence, indeed, in the sense is so complete that no honest controversialist can keep up the pretence that opium is sent to China under any compulsion from British government.

A WISH.

"That closer strand may lean to strand,
Till meet beneath saluting flags
The Eagle of our mountain crags,
The Lion of our Mother Land."

JOHN G. WHITTIER.

Dr. BEATTIE and the Rev. O. F. WISNER were summoned to Lien-chau, Dr. MACHLE being very ill. To save time they both walked, the distance across the country being about 200 miles which they covered in a week and returned with him to Canton this week. Dr. MACHLE sails for home on the 6th May with Dr. McCANDLISS.

Dr. WENYON who left Fatshan for England by the Siberian overland route is reported to have safely arrived at Vladivostock. He will join a company of Russian merchants and travel in waggons. He has picked up some Russian and has helpful papers of introduction. His family expect to leave Hongkong on Monday *via* India for London.—'E. P. T.' *N.-C. Daily News*, 11th May, 1893.

Now in the Press. "A Vocabulary of Diseases." Based on THOMSON'S Vocabulary and WHITNEY'S Anatomical Terms. Prepared by J. G. KERR, M.D., for the Committee on Nomenclature of the Medical Missionary Association of China. In ad-

dition to the pleasure with which we make this announcement we beg to add that upon completion a copy of the vocabulary will be mailed to each member of the Association.

In a recent article Sir ANDREW CLARK gives a brief list of the benefits mankind have derived from experiments upon animals. He says:—

“By experimental research we have discovered the conditions for using with efficacy and safety almost all the stronger and more useful drugs, such as digitalis, chloroform, ether, chloral, nitrate of amyl, nitroglycerin, and many others. By experiments on animals we have discovered the nature and relations of infectious diseases, and how in some measure to control the development and spread of fevers, cholera, anthrax and septicæmia. Through experiments on animals [the legs of GALVANI’S immortal frogs, ED.] we have received the electric telegraph, and all the various services which electricity now renders to the conveniences and uses of man. And yet with all these services before us, one cannot (in England) scratch the neck of a rabbit for the advancement of knowledge without becoming a legal criminal. But, on the other hand, for your pleasure or for your profit, or for any other object than the promotion of knowledge, you may, without let or hindrance, beat, starve, mutilate or destroy as many animals as you please. Knowledge can now only be advanced by experiment . . . and lastly, if experimental research hardens the hearts of experimenters it is only too plain that an active antagonism to it begets a disregard of accuracy, a violation of charity, and a spirit of calumny that have no parallel among ordinary men.”

AN OLD STORY BUT A GOOD ONE.

“Gentlemen, you do not use your faculties of observation,” said an old professor, addressing his class. Here he pushed for-

ward a gallipot containing a chemical of exceedingly offensive smell. “When I was a student,” he continued, “I used my sense of taste,” and with that he dipped his finger in the gallipot and then put his finger in his mouth. “Taste it, gentlemen, taste it,” said the professor, “and exercise your perceptive faculties.” The gallipot was pushed toward the reluctant class one by one. The students resolutely dipped their fingers into the concoction, and with many a wry face sucked the abomination from their fingers. “Gentlemen, gentlemen,” said the professor, “I must repeat that you do not use your faculties of observation, for had you looked more closely at what I was doing you would have seen that the finger which I put in my mouth was not the finger I dipped in the gallipot.”

SCORPION-STING REMEDIES.

Ten cases were treated with ipecacuanha poultices, as text-books recommend, but only with transient benefit. In two cases chloroform alone was used and gave instant relief, but swelling remained in this instance likewise. In five cases hydrate of chloral pure and simple was rubbed into the part. It answered well, relieving pain instantly, and with this remedy there was no subsequent swelling. The action of chloral was, moreover, less evanescent than that of chloroform. In order to use it in a more convenient and more rapidly absorbable form, it was liquified with the addition of camphor (three parts of chloral and one of camphor), and to render its action still more rapid the part was punctured with a pin or needle before its application. Menthol-camphor, and butyl-chloral-camphor, were also found efficacious.—R. P. BANERJIE, in *The Lancet*, Oct. 1, 1892 (*Quarterly Therapeutic Review*, January, 1893).

A CHINESE PETITION.

The Rev. LL. LLOYD, of the Fuh-kien mission, sends the following quaint petition, received from a native Christian:—“The

Christian Ting Great Grace is continually being persecuted by the heathen. Last year in the ninth moon seven-tenths of his sown corn was hoed up and destroyed; again during the tenth moon eight-tenths of his sugar-cane was stolen. This year on the third day of the fifth moon, a pig worth two thousand cash was stolen; again, on the second day of the seventh moon, his growing crops were destroyed; and a few nights later his fruit trees were stoned. Now he begs the missionary LLOYD to pray for him and for his persecutors."—*Church Missionary Gleaner*.

Buboes are successfully treated by drawing off the pus through as small an opening as possible, washing out thoroughly with 1 to 1,000 bichloride, and injecting ten per cent. iodoform in liquified vaseline and sealing up hermetically.—*Medical Record, N. Y.*

CHILD MARRIAGES IN INDIA.

A petition signed by over fifty woman physicians has been presented to the Viceroy of India, protesting against child marriages and praying for the passage of a law forbidding the consummation of marriage until the wife has attained the full age of fourteen years.—(*ib.*)

THE ADVANTAGES OF MEDICINE AS A CAREER.

Not enjoyment, and not sorrow,
Is our destined end or way.
But to act, that each to-morrow
Find us farther than to-day.

In the world's broad field of battle,
In the bivouac of life,
Be not like dumb, driven cattle;
Be a hero in the strife!

Lives of great men all remind us
We can make our lives sublime,
And, departing, leave behind us
Footprints on the sands of time.

Let us, then, be up and doing,
With a heart for any fate;
Still achieving, still pursuing,
Learn to labor and to wait.

LONGFELLOW.

RETURNING TO HIS FIRST LOVE.

In a recent address on antiseptics, Sir JOSEPH LISTER returns to the use of carbolic acid as on the whole the most convenient and effectual antiseptic. He enumerates its advantages, and points out methods of obviating some of the inconveniences which under the earlier methods attended its use.—*Medical Record, N. Y.*

SALTS AND SENNA MITIGATED.

Lyon médical gives the following formula: Infuse 10 parts of senna and 15 parts each of magnesium sulphate and roasted coffee in 120 parts of boiling water, strain, and sweeten.—*New York Medical Journal*.

MEDICAL MISSIONARY STUDENTSHIPS.

The Society for Promoting Christian Knowledge has made provision for offering studentships for the training for medical missionaries. The studentships will be tenable for periods not exceeding four years. The amount, which will not in any case exceed £150 a year, will be fixed by the Standing Committee of the Society. The Standing Committee will nominate to the studentships, and the following classes will be eligible for appointment:—(1) Medical men who, having completed their professional education, are willing to go through the training needful for ordination, and, after being ordained, to exercise their medical skill and experience as missionaries among the heathen; (2) clergymen who are willing to go through the medical training for the medical profession, and, after obtaining their diploma, to serve as missionaries; (3) medical men who, having completed their medical training, desire to undertake lay mission work among the heathen, and are willing to undergo at least one year's training with that object. Those who hold the studentships will be required to pledge themselves to work as medical missionaries among heathen or Mahomedan races.

THE WOMAN'S MEDICAL JOURNAL

Is the title of a new monthly journal devoted to the interests of women physicians. It is edited by Dr. E. M. ROYS-GAVITT, and published at Toledo, O. The editorial salute begins with the following tale. There is an early Christian legend that says that when one of the saints applied for a home in a monastery, that the prior refused him entrance on the plea that the monastery was already filled, and there was no room for another novice. Undeterred by this announcement, the pilgrim took a glass of water which was well filled, and in reply placed a rose leaf in it without spilling a drop. It is needless to say he was admitted. This story is not without its moral. They may say, and say truly, that the field of medical journalism is well filled, and that there is no room for another journal. We beg to present ourselves, even as the pilgrim to the monastery, with the rose-leaf in our hands." We wish success to the modest rose-leaf.

A South London glazier is up to date in the art of perforating glass. This is his rule: Stick a piece of stiff clay or putty, where you wish to make the hole; make a hole in the putty of the size you want reaching the glass, of course, and after this, pour a little molten lead, when, unless it is very thick glass, the piece will immediately drop out.

Looking at some missionary pictures lately with a friend who knew Chinese ways, we were puzzled by the quick remark, "Those are Christians." We looked closely at the group. There was a Chinese father with a quaint Chinese baby in his arms, and a Chinese woman sitting beside him. "How do you know?" we asked, failing to see anything in the picture to guide us as to the religion of the family. "Don't you see the father has the baby in

his arms? No heathen Chinaman would think of that!" was the reply. Yes, Christianity is at the bottom of the sacred joys of home.—*Awake*.

Patient.—"As we have known each other so long, doctor, I do not intend to insult you by paying your bill. But I have left you a handsome legacy in my will."

Physician.—"Very kind of you, I am sure. Allow me to look at that prescription again; there is a slight alteration I should like to make in it."—*Medical Record, N. Y.*

Dr. LOUIS PREVOT, a French savant, is studying the language of chickens, and proposes to give the results of his study to the Academy of Sciences.

A SCANDALOUS PURGE.

One of the smaller items of expenditure brought to light in the Panama investigation was one of \$120,000 for cathartics.

The following letter was written by Dr. E. FARKAS to the *British Medical Journal*:—

It is interesting to know how the teaching of the antivivisectionists, that one animal might not be sacrificed for a man is in discordance with the teaching of the Holy Bible:

"And ABRAHAM lifted up his eyes, and looked, and behold behind him a ram caught in a thicket by his horns: and ABRAHAM went and took the ram, and offered him up for a burnt offering in the stead of his son," (Gen. xxii, 13.)

"And there was there an herd of many swine feeding on the mountain; and they besought him that he would suffer them to enter into them. And he (Christ) suffered them. Then went the devils out of the man and entered into the swine: and the herd ran violently down a steep place into the lake and were choked." (St. Luke viii, 32, 33.)

Permit me a quotation more, showing that the experiments performed upon living animals are not quite useless. An eminent authority writes in 1890: "HAMILTON'S beautiful experiments with sponge grafting, all of which I have followed with fair success, were the first light which came to me explaining why LISTER was wrong." This eminent authority is Mr. LAWSON TAIT.

AMERICAN JOTTINGS.

According to the last census returns, there were, at the time it was taken, 62,622,650 inhabitants in the United States of whom 53,372,703 were born in the States. The coloured population, including Chinese, Japanese, and civilized Indians, was 7,638,360. The number of males was 32,067,880, and of females 30,554,370. During the last decade the increase of males was 25.66 per cent., while that of females was only 24.02 per cent. Here evidently is an opening for ladies who have not found their vocation in the Old World.—The Plaquemines leper colony in Louisiana consists of 27 persons who, Mr. HUTCHINSON will be interested to hear, live almost entirely on fish.

Dr. G. Y. TAYLOR one of our genial and most indefatigable special correspondents writes thus to our Secretary from the Capital: "As regards delegates to the Congress at Rome, it is extremely improbable that Dr. ATTERBURY will visit Europe in the coming autumn, and consequently an election will be an empty honor. Unless the unexpected happens, I trust he will be in Peking again by October."

POTASH-FORMING INSECTS.

At a recent meeting of the Entomological Society of London, Mr. OSWALD LATTEr stated that the imago of the *Dicranura vinula*, in emerging from the cocoon, produces, probably from the mouth, a solution of caustic potash for the purpose

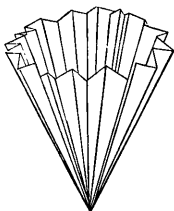
of softening the cocoon. The solution was obtained for analysis by causing the moths to perforate artificial cocoons made of filter-paper. Professor MELDOLA said that the larva of *Dicranura vinula* secretes formic acid, but the fact that any animal secreted a strong caustic alkali was a new one.

According to the *Boston Medical and Surgical Journal*, Dr. PARKER SYMS, in a recent discussion on appendicitis, at the New York Surgical Society, referred to a case in which during oöphorectomy the vermiform appendix came into view, and although healthy, was removed because of its length (5 inches), which it was feared might cause future trouble. By way, perhaps, of proving that it was not only healthy but exceptionally vigorous, the appendix, after removal, proceeded to indulge in a *pas seul* of a remarkable character, "it continued to squirm and turn on the plate very much as a grub worm might do, and finally a formed fæcal movement took place from it." A morbid imagination might see in the last act of this interesting performance an expression of resentment on the part of the unfortunate appendix at being mutilated, like a too eloquent contributor's "copy," solely on account of its length.

We understand that the class of army surgeons at the Army Medical School, Netley, preparing for service in India is now being instructed by Professor WRIGHT in the method of conferring immunity from cholera by the vaccination procedure of M. HAFKINE, recently worked out at the Pasteur Institute. Upwards of fifty doctors and students of medicine have voluntarily undergone these vaccinations in Paris, among the first being Professor HANKIN, formerly of Cambridge but now of Agra. The results have been harmless and afford room for encouraging anticipations. M. HAFKINE has been invited to Netley, and has kindly and generously accepted the

invitation, with a view to completing the teaching of Dr. WRIGHT by practical laboratory instruction. This method of conferring immunity from cholera may be of great value to our Indian army and to the population of India, which now incur immense annual expenditure of life and money from the ever present ravages of cholera.—*British Medical Journal*.

Filtration is wonderfully facilitated, in general pharmaceutical work, by plaiting the filter-paper into the form here shown. In forming these folds, the creases should



not be extended entirely to the apex, but discontinued at a point about one-half inch from it; otherwise the point at which all the creases converge will be so weakened that the weight of a filter-full of liquid will generally rupture it. * * * While pouring liquids into the filter, do not deliver the stream upon the weakened and exposed apex, but rather let it fall upon the sides where the paper has firm support. * * * Always return the first portion of the filtrate, as it usually contains fibres from the paper.—*Bulletin of Pharmacy*.

Two incidents recently reported by our missionaries in China may be taken as illustrating the growth of kindly feeling on the part of the natives. Dr. and Mrs. PECK write that on reaching Pang-chuang, on their return to China, they were cordially welcomed by the natives, and had not been in their compound an hour before a deputation of village elders, not Church members,

came to pay their respects and express their satisfaction. Mr. KINGMAN, of Pao-ting-fu, speaks of a tablet nine feet high, in blue and gold, with the Commandments engraved upon it, which he had prepared for the new chapel. For this purpose the Commandments were written out, as an act of friendship, by the literary chancellor, now residing at Pao-ting-fu, a *Han Lin*, the highest literary degree in China, and a personal friend of the Viceroy. This is in striking contrast to the hostility manifested toward missionaries in some parts of the empire.—*Missionary Herald*.

Private letters from Swatow describe an exceptional pressure of work in the hospital. Dr. LYALL having on his hands some two hundred in-patients, a larger number than have ever before been in hospital at one time. Spite of this great strain, we are glad to learn that Dr. LYALL's own health continues to be good, better than any summer since his return to China. The Church will rejoice and give thanks with him that there now seems every prospect of his being able to stay at his post until the time at which his next furlough falls due, a length of service which a year or two ago appeared almost impossible.—*The Presbyterian, Eng.*

Since the above appeared Dr. LYALL has been compelled to go to Japan. Our earnest good wishes for his welfare, follow him.—(ED.)

PRENATAL BAPTISM ACCORDING TO GREGORY.

The *Province médicale* for April 1st quotes from a letter said to have been written by DIDEROT to Mlle. VOLLAND in 1760, recounting that a certain English physician named GREGORY, being convinced that in the next world it would go hard with any child that had died without having undergone sprinkling of its head with cold water, accompanied by a certain verbal formula, always baptized the child *in utero* in cases of difficult labor. Having first

pronounced the formula, "Child, I baptize thee," he filled his mouth with water, then applied it suitably (*appliquait convenablement*), and squirted the water as far as he could. As he wiped his lips with a napkin he was wont to remark: "It takes but the hundred-thousandth part of a drop to make an angel." We are not told the Gregorian method of dealing with a difficult case of breech presentation.

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The Decennial Conference of Indian missionaries which was held at Bombay at the close of December last, has achieved an unexpected though not a desirable celebrity. Its inability to pronounce, as a Conference, on the three evils which are a conspicuous hindrance to the progress of the Gospel in the East—the opium traffic, the drink traffic, and the legislative sanction of and practical encouragements to impurity, each of which evils enjoys the fostering patronage of the Indian government—is and must remain to ordinary minds a sore puzzle,—*Medical Missions at Home and Abroad*.

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A young doctor ordered a first class self-registering thermometer. A few days after receiving it he wrote that he had had it on ice three days, but couldn't get the mercury down. The dealer shook it down and the doctor was satisfied.

—

DR. W. E. MACKLIN and family are leaving this week for the United States. They will be greatly missed by our missionary community. Many good wishes follow them in their journey home, and hearty welcome awaits their return.—Own Correspondent. *N.-C. Daily News*.

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We believe that we are well within the scope of cool dispassionate expression when we assert that Professor DEWAR's great scientific discovery of the liquifying of permanent gases and the use of vacua to pre-

serve great cold mark one of the most important additions to the chemical science of the century. We append a few extracts taken from a *Pall Mall Budget's* representative who interviewed this maker of liquid air: "You see at present we've got these gases down to 210° below zero, and the lowest possible temperature is 274° below. If we could get some 30° lower down we might liquify hydrogen; hydrogen has never been liquified in a free state yet." "Now, it's a strange thing, that air can be made into homogeneous fluid. You would think, as oxygen can be liquified at—182° and nitrogen not until—192° that as you made the air colder and colder the oxygen would become liquid first and then the nitrogen but it does not—he went on to explain how the influence of atmospheric pressure on the different volumes of nitrogen and oxygen in air makes them boil almost exactly at the same temperature. Now that in the old teleological days would have been taken as a providential dispensation. The strange thing is that when liquid air evaporates again they are under the same pressure, and the nitrogen goes off first as you would expect. Now as to ozone. Ozone can be liquified by acting on the vapour given off from liquid oxygen by electricity; it is a splendid dark blue colour, almost as dark as indigo. Ozone has not the same molecule as oxygen, and the electricity breaks up three twos into two threes; that is the secret of it. The queer thing about liquid ozone is that when it goes back into a gas again it explodes. It is stronger than dynamite as an explosive. It's simply because the ozone goes back into the molecular form of oxygen so fast; the force that comes from the electricity makes it explode without meeting with any outside body. It's a tremendous explosive. The other day I'd got some liquid ozone in a test tube—hardly any of it—perhaps 10 grains—I let it evaporate—and having some idea what was coming, I put it carefully between two sheets of stout plate-glass—before I had looked at

it a couple of seconds there was a crash and the whole thing was in powder. Now all the physical constants of matter will have to be investigated afresh in the new media. Yes, the field for investigation is simply unbounded. We have discovered that liquid oxygen acts as a lens; it is so transparent to heat, so to speak, that even at 182° —you can focus heat on it from one side and light a piece of paper by it on the other. That's just what happens in the earth; the sun's heat gets focussed on to the earth through the lens formed by the vacuum of space which is so cold that it hasn't any temperature at all—absolute zero. Then again metals conduct electricity better at these very low temperatures than they do at normal ones. For example, iron usually has one-seventh of the conducting power of copper, but when you get it at -200° it has half as much again as copper in the normal state. And if by this vacuum method we could get metals down to the absolute zero they would be perfect conductors. No expenditure of energy would be experienced, and a wire once charged would run on for ever. If a low enough temperature could be attained we should know whether cohesiveness is a matter of molecular motion—that is, of heat, or is dependent on gravity—that will mean the solution of one of the greatest problems of the world."

Our authority goes on to say that he left the professor in fierce anger inveighing against the pot hunting, superficial, scientific education of to-day. "This is the true education—research is what educated great men like FARADAY and DAVY. But the scholarship-hunting and fellowship-hunting stamp out all originality and individuality from young men." It cannot but occur to us that certainly Professor DEWAR's work had not had that effect upon him.

A very sad accident took place on Tuesday the 18th April at Nanking. We quote from the *Shanghai Mercury*: "The infant son

of Dr. JELLISON, while out of his mother's sight for a few minutes, fell into a large water jar and was submerged so long that, though, by the careful attention of Dr. BEEBE, breathing and circulation were somewhat restored, the little patient died next day. A death of one of our little community, especially such an unexpected death is a great blow, as the foreign community here is really like one family."

With reference to the *Casualty* Department of St. BARTHOLOMEW'S, London (142,745 casualty cases last year) the special correspondent of the *Therapeutic Gazette* speaking of the predominant ailments and their remedies, tells us:—

"That which is used in by far the greater number of cases is the "queen iron," mixture as they call it, a simple mixture containing ferric chloride and quassia, the taste of which leads the patients to think they are taking quinine, hence their name for it. This seems to do a wonderful deal of good in the cases of atonic dyspepsia, struma, general wretchedness, etc., which are engendered by working for long hours in the crowded, hot rooms which so many of them have to frequent. Two or three bottles of this generally suffice to make cases of this sort feel all right again. Perhaps next in favor comes the "haust. menth. sulph. c. mag. sulph."

R. Mag. sulph.,	gr. lx.
Acid. sulph., dil.,	Mx.
Syr. papav. rub.,	Mxxx.
Aq. menth. virid.	to oz. i.

This is, besides being one of the most efficacious, one of the cheapest mixtures in the pharmacopœia. Next comes the "haust. gentiana c. rheo."

R. Inf. rhei,	oz. ss.
Tinct. gent. co.,	dr. ss.
Sod. bicarb.,	gr. xviii.
Sp. chloroformi,	Mx.
Aq. menth. pip.	to oz. i.

The efficacy of this mixture in a large proportion of the cases of dyspepsia is without question."

We are sure that all our readers will regret to hear that Mrs. THWING the widow of Dr. F. P. THWING who died of typhoid fever at Canton rather more than a month ago, has now herself succumbed to the same disease, after a long struggle, on the 18th inst.—N.-C. D. N.

At the time of our writing Egypt is one of the great political features of the day. Does it recur to us, how this ancient country, famous in the history of the civilized world, still affords a standing verification of the prophecy enunciated by EZEKIEL (xxx. 10-13): "I will make the land waste and all that is therein, by the hand of strangers . . . and there shall be no more a prince of the land of Egypt." For twenty-three centuries the valley of the Nile has at various times been conquered, wasted, and ruled by Persians, Macedonians, Greeks, Romans, Arabs, and Turks; but the home of the proudest and most ancient royal line of kings, the land of the Pharaohs, whose imposing sepulchres still show no signs of decay, has never more been ruled by a prince of the land of Egypt.

TO CLEAN A STOVE PIPE OF SOOT.

This can be done without taking down the pipe and imperilling the combination. Take about two pounds of strip zinc, and when you have a large bed of coals put in your zinc and open the draught in the chimney—if this is done every three or four days the pipes will be effectually cleaned.

The "Life" of Mrs. BOOTH by one of her daughters has lately appeared, we cannot forego quoting the following from the *Leisure Hour*, speaking of her funeral—"the very harlots hushed each other in the streets, and the rough unaccustomed cheeks of the poorest and most depraved were wet with tears as they watched the speechless, yet eloquently silent body pass by of the woman who from her very childhood had

held their cause first at heart, and who had so unwearingly fought their battles. We scarce know which touches our hearts the more deeply, the cloudless sunrise of the child champion, or the glowing sunset of the soldier-saint."

Without touching any of the questionable operations of the Salvation Army, we can only say that CATHERINE BOOTH, the "mother of the army" was as truly a saint as most of those whose names appear in the Calendar of the Churches.

We beg to acknowledge with thanks the following books, etc., which have been courteously sent us:—

Methods of Precision in the Investigation of Disorders of Digestion. By T. H. KELLOGG, M.D. Modern Medicine Pub. Co., Battle Creek, Mich., 1893.

The Structures of the Mesosalpinx: Their Normal and Pathological Anatomy. Edinburgh: OLIVER and BOYD. 1893. By J. W. BALLANTYNE, M.D., F.R.C.P.E., F.R.S.E., and T. D. WILLIAMS, M.D., B. Sc.

A Case of Eczema with Urticaria as a Complication, and Unusual Mode of Transmission in a case of Delmatitis Venenata. By T. ABBOTT CANTREAL, M.D., New England Medical Monthly. 1892. Philadelphia.

Annual Report of the Canadian Presbyterian Mission in North Honan for 1892.

An Historic Pharmacy. By JOSEPH HATTON—and illustrated by W. H. MARGETSON. Reprinted from the English Illustrated Magazine for December 1892 by the kind permission of Messrs. MACMILLAN & Co.

An Examination of the Eyes of 311 Students with Charts. By W. F. SOUTHARD, M.D. (Harv) Oakland, Cal. Reprinted from *Pacific Medical Journal*, October, 1892.

BIRTH.

On the 24th December of last year, at Hanchung Fu, the wife of Dr. WILSON of a son.

ARRIVALS.

At Shanghai, February 28th, Miss RITTA GIFFORD, M.D., of Woman's Board, Canadian Methodist Mission, for Chentu, Szchuen.

At Shanghai, April 14th, A. Ross, M.D., from England for China Inland Mission.

From the United States via Europe, the Rev. H. G. UNDERWOOD, D.D. and Mrs. UNDERWOOD, M.D. and child for Seoul, Korea, of American Presbyterian Mission.

At Shanghai, May 5th, Dr. R. J. GORDON, of Irish Presbyterian Mission, for Newchwang.

At Shanghai, May 20th, the Rev. Dr. COLLINS of the American Protestant Episcopal Mission, for Hankow.

DEPARTURES.

From Shanghai, April 14th, Dr. and Mrs. MERRITT and family for New York.

From Shanghai, May 8th, Dr. and Mrs. MACKLIN and three children for Montreal.

From Shanghai, May 27th, by the *Empress of Japan*, Dr. and Mrs. BUSHELL, two children and amah for London.

On the same date, Miss E. F. SWINNEY, M.D., for Philadelphia and Dr. W. H. and Mrs. PARK and child for New York.

From Shanghai, on the 17th June, Dr. and Mrs. HOPKINS and two children for Boston, U. S. A.



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Original Communications.

[No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editor on the first day of the month preceding that in which they are expected to appear. A complimentary edition of a dozen reprints of his article will be furnished each contributor should he so desire. Any number of reprints may be had at reasonable rates if a *written* order for the same accompany the paper.]

MEDICAL NOTES FOR NON-MEDICAL READERS.

*No. V. Diarrhœa and other Bowel Complaints.**

By S. R. HODGE, M.R.C.S., L.R.C.P. (Lon.)

Tropical Dysentery (*δυσ* difficulty and *εντερον* an intestine) is quite a distinct thing from a diarrhœa, however protracted, and also, both in its origin and effect, unlike the sporadic cases of dysentery, dependent upon defective sanitation and overcrowding, which are occasionally met with at home. It is universally admitted that the dysentery we meet with in the tropics is connected with the malarial poison which always accompanies a wet and undrained sub-soil; and wherever, as in some places, the drainage and cultivation of marshlands has been undertaken, malaria has disappeared and dysentery along with it. Dysentery differs from diarrhœa in that there is inflammatory ulceration of the large bowel; it is characterised by frequent and urgent calls to stool (due to the irritation of the inflamed bowel), by much straining and burning pain (due to the passage of the discharges over the ulcers), and the matter passed consists mostly, or entirely, of mucus and blood, derived from the ulcers in the bowel. When therefore you know that a person is *frequently* going to stool and is passing merely a little mucus, or mucus and blood, and that there is pain and straining you know that it is not a case of diarrhœa but of dysentery. "Dysentery may accompany or follow an attack of malarial fever" but not unfrequently there may be no distinct attack of fever, simply a little rise of temperature traceable to the inflammation present

* It has been pointed out to me by a medical friend that the term "Gregory Powder" is not so well known as I had imagined, it is the popular name, in England, for the Compound Powder of Rhubarb.

in the bowel. In the latter case the dysentery is "generally due to the prolonged effect of the malarial poison upon the liver, producing stagnation and slowing of its circulation, leading to impairment of all the functions of the intestinal canal and following the absorption of poisonous products into the blood." Multiple abscesses of the liver are a not uncommon sequela of chronic dysentery, due to absorption of septic material from the inflamed bowel. Whilst malaria is the underlying cause of tropical dysentery, there are many circumstances which are the *determining factor* in the attack. Such are—bad drinking water, unwholesome and indigestible food, impure air leading to improper aeration of the blood, sudden vicissitudes of temperature, and exposure to damp and cold which, by suddenly checking the action of the skin, leads to congestion of the liver. We are thus lead to see the importance of some of the prophylactic measures mentioned in my first papers, viz., proper food, proper drinks, suitable clothing and good hygienic surroundings. It is very important to recognise the early stage of dysentery as, if *taken early*, in the first 12 or 15 hours, and suitably treated *it can in the great majority of cases be speedily stopped*. Therefore, my friend, do not get into a panic on the first symptoms of dysentery, for a clear and cool head may mean saving of a valuable life. 'Knowledge is power,' and the knowledge that this terrible disease is perfectly under your control, in most cases, will help to give you confidence. The onset of an attack of dysentery is by no means always characteristic, and more frequently than not, commences as a diarrhœa, preceded by after days of a general feeling of out of sorts. The diarrhœa gets more urgent and speedily takes on the characteristic symptoms named. At this early stage a dose of castor oil (a half to one ounce for an adult) will often arrest it and stop all mischief. If, however, it is not so checked other symptoms will develope. The calls to stool will become more frequent and urgent; the pain and scalding will be more distressing and the feeling that there is something to get rid off in the bowel, leading to terrible straining, will increase in intensity. All this time the matter passed from the bowel will be very scanty and consist entirely of mucus and blood, or, later, of pus and blood mixed with sloughs, the dejecta having a very sickly odour. The patient becomes weaker and weaker, the abdomen becomes tender and swollen, there may be difficulty or complete inability to pass water, the face will be anxious and dusky, tongue foul or unnaturally bright, and frequently there will be sickness and some thirst. These symptoms may either get worse and end in death, or gradually pass into a chronic condition which may last for an indefinite time. In the former eventuality the final act is often ushered in *by a deceptive period of calm and apparent improvement*. The diarrhœa ceases, the pain abates and the patient is quiet and appears comfortable—and hopeful friends think he is getting better; but it is the quiet of exhaustion and the painlessness of lessened

sensibility and is, in fact, a sign of the approaching end. Signs that the worst of the disease is past are :—the pulse gets slower and stronger, the countenance becomes less anxious, the tongue begins to clean, there is less griping pain in the abdomen and less straining with the motions, whilst the latter begin to show signs of feculence. Fortunately we have in *ipecacuanha* a remedy which is at once safe and effective—it acts like a charm in dysentery. Under its influence the inflammation of the bowel speedily subsides, the pain and straining at stool disappear, and in place of blood and mucus being passed the motions consist of pultaceous brown feculent looking matter which are so characteristic in appearance as to be known, amongst the profession, as *ipecacuanha stools*.

There is a proper way to take *ipecacuanha* and the details of the procedure must be carefully observed. Go to bed. Abstain from all food or drink for one or two hours before taking the medicine, and for the same period after taking it. Put a mustard poultice or hot turpentine stupes on the abdomen. Next take twenty to thirty drops of laudanum, or, if you have not that by you, of chlorodyne. Half an hour afterwards take 30 grains of powdered *ipecacuanha*, or 30 drops of the fluid extract of *ipecacuanha* of the strength of i grain to i minim. The powdered *ipecacuanha* may be taken in gelatine capsules, or in wafer paper, or it may be suspended in half a wineglassful of water, to which may be added either two or three drops of chloroform, or from twenty to thirty drops of chloric ether.* Then lie perfectly still on your back or if you must lie on your side lie on the left rather than right and if you can get a friend to read something interesting to occupy your mind all the better. As a rule the stomach, so prepared, will not reject the dose or will generally retain it for two or more hours, by which time sufficient has been absorbed to do its work. The best time to take the *ipecac.* is the last thing at night and the first thing on waking in the morning. This time has two advantages (1) it leaves the day free for the administration of nourishment, which is very important and (2) the evening dose, if you can quickly get to sleep, will seldom be rejected, whilst the long rest to the stomach at night makes it less irritable and so gives the morning dose a good chance of being retained. If, despite these precautions, the *ipecacuanha* is quickly vomited, then wait for 2 hours and try again, reducing the dose by one-half. Persevere, reducing to one-fourth if necessary. But, as a rule, *if ipecacuanha cannot be retained it is a sign of some complication*, very probably connected with the liver, and that the patient needs prompt medical skill. Should the *ipecacuanha* be retained then the dose should be repeated in about 10

* Chloric ether is the old name for spiritus chloroformi, but it has a slightly stronger preparation being 1 in 8 instead of 1 in 20. It matters little which is used as it is simply to cover the taste of the *ipecacuanha*.

hours time, *i.e.*, in the evening if the first dose was taken in the morning ; the same precautions must be observed with each dose not neglecting counter-irritation to the abdomen. When taken in this way ipecacuanha is perfectly safe, I believe, and one need neither fear uncontrollable vomiting or intense depression. During the attack food should be limited to milk and barley water, or milk and soda water, or milk and lime water, peptonised milk or Benger's food, or cold chicken tea, arrowroot, Brand's essence of beef, etc. "The question of continuing the use of the remedy must be determined in each particular case by its effect on the general and local symptoms. If the calls to stool are reduced to 2 or 3 in the 24 hours, and losing their dysenteric appearance, have become feculent, and are voided without pain or straining ; if the restlessness has been calmed and the patient obtains refreshing sleep, and the pulse resumes its normal frequency, or tends distinctly that way, the large doses should be stopped" (Maclean). About 5 grains of ipecacuanha may now be taken night and morning for two or three days, and then, if any looseness of the bowels persists, it may be met by 5 to 10 grains of Dover's Powder (compound powder of ipecacuanha) at bed time, or by 2 grains of ipecacuanha combined with 10 grains of bismuth night and morning, or by the same amount of ipecacuanha suspended in water to which 10 drops of chlorodyne have been added. *The patient should maintain the recumbent position until every trace of abdominal irritation has subsided.* This I have found the most difficult part of the treatment, for as soon as the urgent symptoms have passed and the patient begins to feel himself better, he attaches little importance to a slight looseness of the bowels, and all eager to redeem the time lost insists on returning to his ordinary work. There will be equal difficulty in persuading the convalescent to be careful with his diet. But "return to the ordinary diet must be exceedingly gradual, and the sufferer must be most careful in this respect for some weeks after apparent recovery. Relapses are frequent and often fatal, when this caution is neglected. The ulcers, *not entirely healed up* may, by any indiscretion, be again irritated into destructive action, to the reproduction of all the acute symptoms, and to the disappointment and danger of the patient." It may be taken as a safe rule that *a persistent looseness of the bowels* (I have known an average of 5 or 6 motions a day for months) *after an attack of dysentery means unhealed ulcers in the colon* and calls for the exercise of great caution. Potatoes and other vegetables, salt, pepper, and all spices, must be avoided until the digestive system gets normal and the bowel irritation passes off ; an observance of the rules given for chronic diarrhœa will be productive of great benefit. All stools passed in an attack of dysentery should be disinfected by carbolic acid or Jeyes fluid and then buried, as there is a doubt whether the putrifying dejecta will not communicate it : experience in some of the old Indian barracks

tends to show that they will. An enema of starch and opium, laudanum thirty drops, 2 ounces of mucilage of starch, made by boiling 120 grains of starch in 10 ounces of water, will relieve the pain and straining if excessive. It is a good thing, if the dysentery is due to chill and the skin is hot and dry, to give the patient a hot bath at once, the bath being as hot as he can bear and given at the bedside; every precaution must be used to prevent chill afterward, the bed pan being used whenever the patient's bowels are moved. Dysentery is a very serious complication of pregnancy, miscarriage being the result to be feared. Treatment must be commenced at once, on the earlier symptoms, by absolute rest and castor oil. Morning sickness may interfere with the administration of ipecac., but absolute rest will, generally, enable the drug to be retained later on in the day, especially if combined with 10 grains each of bicarbonate of soda and bismuth. Should malarial fever complicate the attack, then *full doses of quinine* must be given in between the doses of ipecacuanha. As I hear that there is a mischievous opinion getting abroad amongst some sections of the missionary community to the effect that no China fever ever requires larger doses of quinine than 3 *grains* (!!) I take this opportunity of saying that I scarcely know which is the more dangerous practice—to be always taking quinine for every ailment, real and imaginary, that flesh is heir to, or to *play* at taking it when it is really needed. Leave quinine alone except when clearly indicated, but when in presence of *high* malarial fever, remember that *full doses of quinine* means x—xv. grains repeated in two or three hours—and to give less than this is, generally speaking, trifling with a serious malady.

Chronic dysentery, in which the stools always contain more or less mucus and blood, and in which impaired nutrition unfailingly brings increasing weakness, calls for different treatment. Here *change of climate*, away from malaria, will do wonders and is imperatively needed. The voyage home should always be by sea and by as long a route as possible. But do not delay the change till the patient is at his last gasp, for a voyage under such circumstances is sheer cruelty. Until such time as the patient can embark, small doses by ipecacuanha (gr. ii) with bismuth and soda (of each gr. v) may be given three times a day, with 10 grains of Dover's Powder (pulv. ipecac. co.) at night time to procure a good rest. Should an acute relapse take place it must be treated with full doses of ipecacuanha, as directed above, just as if it were a first attack of dysentery.

(To be continued.)

HOT AND MEDICINAL BATHS AND THE TREATMENT OF LEPROSY IN JAPAN.

By W. K. BURTON,

Professor of Sanitary Engineering, Imperial University, Tokio, Japan.

The use of the hot bath is carried in Japan to an extent that it is carried, so far as I know, nowhere else in the world. Not only does every Japanese, of high or low degree, consider a hot bath once a day a necessity, but he enters the water at a temperature that is perfectly astonishing to one who is only accustomed to what is called "the hot bath" in Europe and America.

The baths are either private or public. Any family of the least pretension—in fact, all but the poorest—have a bath in or near the house. This is an enormous wooden tub, generally oval in plan, with a large copper tube passing vertically through the water near one end. In this tube charcoal is burned, and the water is thus heated. In the towns the baths are always in the houses; in the country they are often several yards away; and it is a sight, strange for the first time, to see the various members of a peasant's family trooping out, one at a time, in nature's garb, to take their turns at the evening bath.

The public baths are of the same nature as the private, but are generally square in shape, and are, of course, much larger. In these public baths it used to be the universal custom for men and women to bathe together, and the baths were commonly open to the street. Of late years, out of deference to foreign prejudice, the baths in the towns have been closed in, and there is always a division between the women's and the men's bath, although it is of the flimsiest nature. It is sometimes merely a bamboo laid across the bath at the surface of the water.* In the country, and specially at all places where there are medicinal baths, promiscuous bathing is still common. It is not, however, to be supposed that there is any indecency connected with this custom. In fact, the surprising thing, at first, to a stranger, is the complete want of knowledge "that they are naked" that the bathers display. Were one to show that he (or she) "knew that he was naked," it would be taken as a certain indication of a prurient mind.

*I have seen a case in which there were two entrances, over one of which "man's bath" was written in Chinese characters, over the other "woman's baths," thus fulfilling the letter of the law, but where there was no division whatever in the bath.

Besides the private and the public baths, there are what may be called semi-public baths at all hotels and tea-houses. These are almost always used by guests immediately after arriving at such houses.

The general time of taking the bath, except in the cases just mentioned, is after the work of the day is done, at which time the dress is changed also, but those who have leisure often bathe several times a day.

There has been much exaggeration as to the temperature at which the baths are used ; yet if anyone tries to bathe at the temperature I am about to mention, he will find that they are high enough in all conscience. After carefully testing the temperature of many baths that Japanese were bathing in, I conclude that anything below 110° F. is considered too cold, anything above 120° F. unpleasantly hot, although I shall presently give cases where baths are used at temperatures considerably higher even than this. It may be said, roughly, that any temperature between the two limits mentioned is considered agreeable, although women and children seldom care for baths quite as hot as 120° F. In bathing, the bather, after laving himself with the hot water while sitting on the floor of the bath-room, and pouring it over his head, enters the bath and sits immersed in the water quite up to the neck for any length of time from two or three minutes to a quarter of an hour, according to his inclination and the temperature of the water.

Now, a word or two as to the effect on the health of the people of this custom of incessantly bathing in very hot water. When first Japan became open to the world, and the Japanese began to take the advice of Western folks on all manner of things, the Western physicians strongly condemned the practice for no other reason than that, inasmuch as it was so foreign to other ideas, it must be bad. A regulation was issued, that the public baths must not be heated above a certain comparatively low temperature, and there was consequently great discontent among the people.

This discontent gave rise to an investigation of the subject by physicians, both Japanese and foreign, with the result that, except in the case of those suffering from a weak heart, the custom was pronounced not only harmless, but beneficial. The high temperature thoroughly opens the pores of the skin, and, even without the use of soap, a healthy skin action and a cleanliness are secured that are not to be had by any amount of washing in cold water or by the taking of what we call "hot baths." The hotter the water the less is the chance of catching cold after the bath, while a really hot bath taken just when it is felt that a cold is coming on will generally stave it off. There can be no doubt that the general healthiness of the Japanese, living among sanitary surroundings in many ways very defective, is greatly due to their habit of frequently bathing in hot water.

Those who have never taken a really hot bath can have no idea of the refreshing effect that it has, say, after a tedious journey. Instead of the relaxing effect that the tepid bath which we call "hot" has, it is highly invigorating. Curiously enough while, in cold weather, it has the effect of preventing the cold from being felt for several hours after bathing, it has, after a few minutes, a cooling effect in very hot weather. I suppose this is to be accounted for by the fact that the skin is brought into healthy action. The effect of a really hot bath on the temperature of the body may be interesting to some. The following is the result of observations made on myself:

Temperature of the air	75° F.
" of the bath -	116° F.
Time in bath	5 minutes.
Temperature of body before entering the bath	98° F.
" at the end of five minutes, while still in bath	101.5° F.
" one minute after leaving bath	102.4° F.
" two minutes after leaving bath	102.4° F.
" three minutes after leaving bath	101.5° F.
" at the end of ten minutes after leaving bath	98.6° F.

That is to say normal.

The temperatures were taken by a clinical thermometer held in the mouth.

The rise of temperature after leaving the bath is curious, but it had already been observed by Prof. E. Baelz.

It might be supposed that the habit of public bathing would lead to the communication of infectious diseases, the more especially as, in some of the public baths and the hotel and tea-house baths, the water is not changed as often as might be advisable. All that can be said is that investigation has so far failed to detect such communication of diseases, and that, if there is occasionally a solitary case, the evil is much more than counterbalanced by the general improvement in health that results from the cleanliness gained by general hot bathing which could not be indulged in by the poorer classes, were it not for the public baths.

In the olden days so essential was hot bathing considered to the health of the people, that there was no fixed charge for the use of the public baths. Those who could not afford to pay might use them for nothing, while there was a scale of charges, fixed by custom, for those who were able to pay a small sum. At the present time the charge for the use of public baths is one cent or one and a half (silver currency).

Japan is a volcanic country, and it may be said to be bubbling with hot springs from end to end. Some are so hot that the cooking in villages is done by placing the cooking utensils in the running streams. Some are only tepid, some are of pure water, others have strong medicinal qualities. All that are in position accessible by any possibility, and that are hot enough, are used by the Japanese for the supply of baths.

Of all the hot spring towns, Kusatsu has the greatest reputation. It is said that the springs have been in use for more than a thousand years, and the repute that they are held in, is indicated by the fact that there is an old proverb to the effect that "even Kusatsu cannot cure love"—a thing, by the way, that would not hold true in the case of foreigners, as some of the baths would speedily kill any lover that might try them for a cure, by the simple process of boiling him.

As a matter of fact, the baths are of the highest value in the treatment of syphilis, leprosy and nearly all cases of skin disease, whether syphilitic or not, and they act simply as a specific in certain cases of rheumatism and gout.

I spent a week at Kusatsu during the summer of 1891, and found the place so interesting that I think a short description of it may be well.

The town or village is at a height of a little less than 4,000 feet above the sea, and is surrounded with mountains rising to some 8,000 feet. Doubtless the magnificent air adds to the efficiency of the baths. Hot water rises out of the ground all about the district. The springs are of various temperatures, and are powerfully medicinal, although the chemical constituents are not the same in all. The most famous bath is the "Netsu-no-yu" (literally fever bath). The temperature of this at the source is nearly 160° F., but the water has, of course, to be cooled somewhat before it is used. In the Netsu-no-yu there are three baths of differing temperatures. The temperature of each varies a little, but I found that of the hottest to be, on one occasion when there were actually bathers in it, 128°. F. More commonly it is 125°. F.

I have no exact analysis of the water, but know that the chief active substances are free hydrochloric and sulphuric acids. The water contains these (principally hydrochloric acid) to the extent of one-quarter per cent. of the whole volume. Besides this, the water, as it issues from the ground, contains about three volumes of sulphureted hydrogen per thousand, and one part of arsenic sulphide in 1,000,000 parts.* Prof. E. Beal, M.D., attributes the curative action of the hot water to the acids, the effect being analogous to blistering on a large scale. Prof. Divers attributes the efficiency in skin diseases partly at least to the arsenic. Whatever may be the truth of the matter, the fact is that the treatment, after ten days or a fortnight, results in blisters and sores of the skin about the scrotum, between the legs and under the arms, resulting in the characteristic "Kusatsu walk," the patients moving slowly along with the legs stretched wide apart and the arms held well away from the body. The pain of bathing after the body has got into this condition is intense, and the patients submit to a sort of semi-military drill under the command of a bathing master. This is a most curious sight to see.

* Prof. E. Divers, F. R. S., etc.

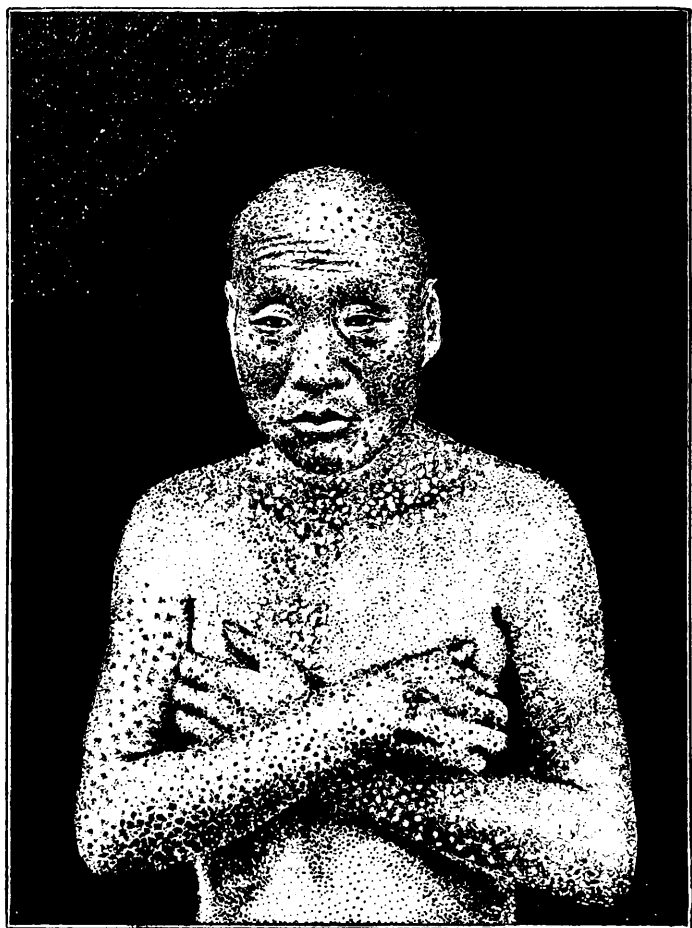
The Netsu-no-yu is a building measuring about forty-five by thirty-five feet, consisting of a wooden roof supported on wooden posts. The spaces between the posts are filled in with bamboo frames. There is a platform raised about a foot and a half above the ground level, immediately within the posts. It is about four feet wide, and immediately within it there is a gang-way of about three feet wide on the ground level. Within this are the baths, sunk some three feet deep below the ground level. As already stated, there are baths at three different temperatures. It is only in the two hottest that the bathers have to submit to discipline.

About half an hour before bathing time a trumpet is sounded, and the bathers begin to arrive. They take their places around the bath and take turns in vigorously churning up the water with broad boards. This exposes the water to evaporation and cools it to the temperature mentioned above.

As the time for bathing approaches, the bathing-master, in a white dress, takes his place amongst the bathers. He gives a signal, and every bather takes a large wooden ladle with a short handle, bends down and begins to pour water over his head. This is to prevent the likelihood of congestion from the excessive heat of the bath. The pouring continues for five minutes. And then there is a second signal, at which all stop for a rest of three minutes. During this time, those who have been most affected by the treatment wrap thin cloth bandages around the parts most affected, as this reduces somewhat the torture of the parboiling process. At the end of the three minutes, the signal to enter the bath is given, and very slowly the bathers lower themselves, taking about thirty seconds before they are completely immersed. And now begins the most extraordinary part of the whole affair. It is a sort of a chant on the part of the bathing-master, with an answering chorus from the bathers, the whole thing intended to encourage them in bearing the pain. I found it very difficult to catch the words, but the following is something like what is said in Japanese. A *very* free translation is given in English:—

Shitaku yō kereba sagarimasho.	[If you are all ready enter the water.]
Sam pun kan.	[There are three minutes.]
Kai-sei no ni fun.	[There are only two minutes more.]
Chokkuri no shinbo.	[Persevere a little longer.]
Kai-sei no ippun.	[There is only one minute more.]
Shimbo ga kan jin da yo.	[Persevere only a very little longer.]
Shi dzuka oagannasai.	[Get out of the water <i>slowly</i> .]

To each of these sentences, chanted in a strange manner, the hundred or so of bathers answer from the bath with a sound that is between a shout and a wailing cry, and that can be heard all over the town. The order to get out of the bath is obeyed, but there is no slowness about the movement. Each



The Moxa in Leprosy.

bather leaps and scrambles from the bath with an agility that shows how hard he has found it to bear. Nearly a hundred enter the bath at once, sitting just as closely as they can, and the bathing goes on for more than an hour, five times a day.

The usual course is about a month, and, after it is over, the bathers generally proceed to another hot spring village where the waters have the effect of very quickly healing the skin.

THE TREATMENT OF LEPROSY AT KUSATSU.

There are many lepers in Japan, and, although they have never been treated as outcasts bound to crowd together in certain places, as in other countries, they have for long voluntarily congregated at certain places where the treatment is supposed to cure them or to alleviate their sufferings. As a consequence there is a leper quarter at Kusatsu. I have it on the high authority of Prof. Beal, M.D., that the Kusatsu treatment of leprosy actually results in a cure in some cases, if the disease be taken at an early stage. So far as I know, Kusatsu is the only place where there are authentic cases of cure of leprosy.

The ordinary Kusatsu bathing treatment might be described as heroic, but what is to be said of that for leprosy?

In Webster's Dictionary the word "moxa" will be found defined as "A woolly, soft substance prepared from the young leaves of *Artemisia Chinensis*, and plants of other species, and burned on the skin to produce an ulcer."

So far as I know, "moxa" is the only Japanese word that has been incorporated in the English language—by the way, Webster professes his ignorance of the origin of it.* It is more strictly "mogusa," the "u" practically silent.

In the treatment for leprosy at Kusatsu the bathing is persevered in for one hundred days—although not in water quite so hot as that of the Netsuno-yu—and on every one of these hundred days 1,000 moxa are applied to the skin, all affected parts being cauterized over and over again! It is truly doubtful whether the cure is not worse than the disease.

The moxa is applied by a tolerably handsome middle-aged woman. She was a leper some fifteen years ago, but was entirely cured by the treatment. It is only on looking closely into her face that one can see that her skin is covered with innumerable minute pits, the result of the 100,000 moxa!

* In the latest edition of the Dictionary the derivation of the word is given. Six admirably executed photolithographs add much to the interest of Professor Burton's paper.—Ed.

OBSERVATIONS ON OPIUM.

BY V. P. SUVOONG, M.D., B.D.

The Emperor Tao Kwong, the grandfather of the present Emperor, was known to be an opium smoker, yet many poor fellows paid the last penalty of life for the very same vice of which he himself was guilty. The Imperial Edict was strict and searching and no favouritism was shown to any person of whatever rank or degree. His aversion to the drug may be considered deep and genuine, and if he had only practised it in his own person by example instead of by precept, it would have made him a greater patriot in the estimation of the people. Even as it was, he is still considered as the only Emperor who took serious steps to stamp out opium smoking in China. In his days it was dangerous to indulge in it, and those who had contracted a habit for it found it difficult to gratify their craving, for there were spies all over the land, induced by large rewards to discover and bring to punishment those who had a weakness for the seductive pipe. Those villainous spies would get on the tops of houses in the dead of night to scent out their victims and many a high mandarin and rich merchant was ferreted out from his most concealed apartments to be executed like common malefactors. In the train of these cruelties followed innumerable cases of blackmail and forcible entrances into houses of the innocent with their attendant evils. But opium smoking flourished nevertheless. For vice, according to Pope, is a monster that we at first abhor, then endure and at last embrace.

The origin, history and statistics of opium are foreign to my purpose here. I will only relate what has come within my personal knowledge or experience in regard to this subject.

None will deny that an immense number of the Chinese are addicted to opium smoking. Even in the vast crowd of the Metropolitan officers in Peking there are few who are not such. When they went there for office they took their opium apparatus along with them, just as the ordinary Chinamen would not part with their brass "water pipes" as they go abroad. Some of the Chinese officers prefer their own preparing of the drug in a copper heating pan and an earthen oven and they entrust that important function to an experienced servant specially devoted to that purpose in their travelling or being abroad, and no doubt there are many such in Peking now. Others who either cannot afford that luxury or not being particular of the mode of preparation, order the ready made article from the many shops and dens that are to be found everywhere even in the small villages of the empire. The home made variety is purer, as the shop made kind is always more or less

adulterated with some inert foreign matters as brown sugar, powdered licorice, &c. Great smokers are as particular about what they smoke as high livers are about the vintage of their champagne. Since the opium smoking officers in Peking are so particular, it is reasonable to suppose that when they go into the provinces to assume their posts of duty and authority that they will devote no little time to this luxury. And indeed they do. When the celebrated Peng Yu-ling was admiral of the Yangtze, he memorialized the Throne against a certain Viceroy for laziness through opium smoking and the latter had to retire from the public service. But now the great Peng is dead and the Emperor finding himself in need of a man of prestige, called out the opium smoker from retirement and he again became and still is the Viceroy of the same provinces which he had ruled before. This is a typical case of a high mandarin in which opium may interfere with public duty.

Many Shanghai residents will recollect a former magistrate here by the name of Muh. He has been dead several years, so that I can do him no harm (or *vice versa*) in mentioning him here. He has been to my house and I have visited his family. He was an opium smoker, and of his three sons, the eldest one spent most of his time in the Foochow Road houses of entertainment and became an opium smoker there. Finally he bought a concubine from there. As the old man had to foot the bill, he did not like it much and made the matter hot for the young man, who, then, foolish lad, committed suicide by swallowing an overdose of raw opium. The second was no better, though I believe he has not yet committed suicide! The third son was by a concubine. He was then only ten years of age, and poor thing, he was totally blind—the eye-balls were not yet shrunk at the time, but the corneæ were perfectly opaque and occasionally he tried to produce subjective light by himself rubbing the eyes as such patients generally do. Muh dearly loved the blind lad who in return was very affectionate. Once there was a family disagreement which filled the mother of this lad with great grief. She had no other child besides that blind boy. She hugged him closer to her bosom and he asked, "Mother, why do you weep?" She said, "I am thinking what will become of you when I am dead." The child sobbed out, "I want to die with you." The mother then took some opium from her husband's divan and gave it to the child, who without hesitation put it in his mouth and swallowed it; and she quietly took a dose herself. When the father came in, the first thing he saw was the mother and child locked in each other's arms, cold and stone dead. Then the old man began to curse the day that he first took to opium. This catastrophe occurred only a couple of months or so after his eldest son's trouble.

When the magistrate's term of office was completed he was promoted to the post of Tai Chong Chow also in this province. While there fresh

trouble persecuted him, and in the weariness of life he himself took a full dose of that very same drug which in times past had given him pleasure without pain and was now to terminate his life by a painless death, the latter office it having had already done to three members of his family and that but comparatively recently.

Some superstitious Chinese recollecting various questionable acts in his past official career, infer that the ghosts of those whom he caused to be executed had found him and were wreaking vengeance on him. But is it not reasonable to suppose that if he were not an opium smoker many circumstances in his family and life would have had an altered aspect?

It may safely be said that nine-tenths of the Yamên runners and staffs are opium smokers; their sins and wickednesses are well known to God and man; and, with opium added, they form a class of men that are a standing disgrace to the country in which they live, and a dishonour to the human form they wear. As to soldiers it is quite notorious that the regulars at the commencement of the Taiping Rebellion were so demoralized and emasculated by opium that it was lucky that they had strength enough left in them to run away with! The Manchu troops, whose sires by dint of strength and daring gained the vast empire for the present dynasty were now adepts with the opium pipe rather than with their ancient bow and arrow. They were now in the habit of selling their spare ration of rice for opium. During the stirring times of the rebellion a Manchu army was never heard of. And were it not for the genius of Tseng Kwo-fan in raising bands of Hunan braves, and subsequently Col. Gordon and his Ever Victorious Army, opium might have been said to be the ruin of the nation in more senses than one. Even now the burden of propping up the present dynasty rests on the hardy and frugal farmers drawn from the provinces of Hunan and Ngan-huai.

I will now mention an instance or two among my personal friends where opium interfered with the progress of treatment in diseases. I do so in a measure to answer those who gravely state in public prints that the continuous use of opium is beneficial to the human system as was done by a British Consul at Chefoo in the *Pall Mall Gazette* in 1881 and a certain Dr. Lawrie in India more recently.

I had a brother who was an opium smoker and I wish the above gentlemen had opium smoking brothers too, just to convince them of the error of their conclusions. Recollect also that a Chinese opium smoker is not a literary Thomas DeQuincy! Yet my brother was not an atrociously wicked man; he was like the average opium smokers in most respects, shiftless, lazy and relying on others to pay their bills! I assisted him to break off his habit twice successfully and helped him to get some employment. When he was on his legs again, unfortunately those legs carried him to li

old haunts and dens again also. At last he contracted a disease and dysentery set in and carried him off. Now it is well known among the Chinese that when an opium smoker has dysentery it is incurable and they call it "opium leaking." It is also remarkable that dysentery is the most common form of complaint to which these poor fellows at last succumb. Among my opium smoking friends one indeed died of a cancerous growth of the testes and one of grief: but with these two exceptions to my certain knowledge those who have died, succumbed to dysentery.

Mr. Hsü the collaborateur of Dr. Fryer in the Kiangnan Arsenal was certainly the most scientific man China has yet produced. He was an opium smoker on a large scale. His shrivelled appearance might be due to old age. He had great faith in foreign medicines, especially after I had given him an injection of morphia which instantly stopped an intense pain and profuse perspiration brought on by eating crabs too freely on a night previous. When he had facial erysipelas he cheerfully bore the inconvenient application of nitrate of silver. But when at last he was attacked with dysentery I was no more called in; and on hearing of his death, I asked his son what was the cause. The answer was:—It was a case of "opium leaking."

One of the former managers of the Arsenal by the name of Pau was also addicted to this vice. He was an able man in every other respect and holding the Taotai's rank, besides being brother to the then Governor of Kweichow he had an excellent prospect of high promotion in his official career. But he was however hurried on to his last long home by an attack of dysentery.

These cases came under my own notice and without mentioning more, or quoting the testimony of others they are sufficient to show that an opium habit so enervates the system that the latter cannot stand against the attack of the fell disease. The patients themselves have an instinctive idea that it is so. Towards the last they refuse everything in the shape of food and medicine and it is a piteous sight to see them bid a final farewell to the pipe also, which had hitherto acted as a charm and talisman in all their bodily ailments of a slight nature, but now fails of its efficacy. Its virtue has departed; it proves itself a broken reed in the great crisis of man.

As to opium cures and refuges there must be a great deal of fallacy in the reports of successes. Trace a patient in his subsequent life after his discharge from a Refuge or his reported cure, and you will find probably that he has taken to the pipe again. The usual atmosphere of life and the character of old friends generally prove fatal to his sound resolution formed under favorable circumstances. Some of those who had been so called "cured" often return to the vice on the sly for evident reasons. During one of my visits to the present Mixed Court Magistrate, in came the highest official of the locality. The latter is in the prime of manhood and in the perfection of health: he is

not an opium smoker and never known to be such. Yet on that occasion while the subject of conversation was on opium, a small parcel of that powdered drug was brought in and to my surprise he in a familiar manner tested its quality by putting some on the bowl of the brass water pipe and smoked it and seemed to enjoy it and he tested several pipes in succession! The inevitable inference from this is that many a man may never be generally known to be an opium smoker, yet on the quiet he may be. Many years ago I was among the invited to a regular "spread" in a large restaurant on the Foochow Road by no less a host than the deservedly prosperous Y. Ching-chong of Shanghai. The inner division of the dining hall was entirely furnished with divans, pipes, lamps and other paraphernalia of luxurious opium smoking and the relays of guests that went over there and indulged in the ecstatic fumes filled my heart with surprise and regret. I said to myself, What a fool you are for supposing this man and that fellow to be down on opium; see how they are puffing away like those steam launches which greet people as they come out for a stroll on the Bund! Oh, how I wished our old manager Li would stalk in and glare on them and how quickly they would leave their bed and walk! I afterwards asked one of Ching Chong's men how is it they introduced opium there? "Well" said he "you are a novice surely; a feast now-a-days is not complete without it." Alas! alas! Did the Emperor Tao Kwong ever imagine that a day would arrive in China when opium would be the *sine qua non* of a convivial gathering? Is it to be wondered at then that cures are so tardily effected while the curse is so petted, courted and rendered fashionable and elegant? And yet for all that, there is always a universal sentiment abroad that opium is an evil. No smoker ever recommends it to his own son. The subsequent calamities of the vice are too numerous to mention—indeed it is not necessary to do so, as they are but too well known. The benefits from opium smoking are absolutely nil. It is true, it affords a certain amount of relief from pain and in many the habit began by taking it for "pain in the stomach" recommended by Chinese doctors or sympathetic friends. But it is a remedy more dangerous than dynamite, for it insidiously kills by slow degrees a far greater number; its temporary relief is purchased at a fearful price. It is true it gives strength for a time to the ricksha coolie, but the poor fellow would give anything to be completely free from its thralldom. The Malays chew betel-nuts, the negroes eat kola nuts, the Austro-Hungarian couriers and the Croats have convenient pieces of arsenic stowed away on the quiet in the vacant spaces of their mouth and when they begin to feel fatigued they tighten their belt a little and turn over the quid in the mouth and then go on their journey again. These stimulants are by no means to be compared with opium which alone has such wide reaching devastating effects. The evil consequences of drunkenness from alcohol are appalling; those of opium

are most so—in the superlative degree. That opium is a prophylactic against fevers requires proofs which are not forthcoming. It is also maintained that it “slows” the physiological actions of the intestines; but that it does so ought to be regarded as an evil and not a benefit to the human system especially in China, where the people are largely vegetarians and consequently they make up quantity for quality in their food. In other words the intestines are more loaded in China than in largely meat-eating countries and to say that the large quantity of effete matters ought to drag their “slow” length along is bordering on absurd.

One thing seems certain, that everything being equal an opium smoker is always worsted in the struggle of ordinary life, and in the contention against diseases he is nowhere. He has a mill-stone hanging on his neck.

The Chinese recognizing the evils of opium have proceeded to discover remedies to wean the people from it. Liu Tse-bsü the Commissioner of Canton that brought on the war of 1842 by his zeal against opium, has a recipe which is still compounded and dispensed in all the native drug stores in the empire. There are numerous other recipes in vogue, but they principally consist of some bitter roots or other which have no value aside from the tonic quality of their bitter principles. In recent years morphia has been largely used by unscrupulous people as an anti-opium medicine. This has been justly condemned by the last Missionary Conference held in Shanghai.

I remember seeing at one of Prof. Alonzo Clark's clinics in the College of Physicians and Surgeons in New York, a man from Australia who was addicted to the morphia habit. He used a hypodermic syringe for it. He was stripped stark-naked to afford an impressive sight to us students. Well, he was a pitiable looking object indeed! From the neck even to the sole of his feet his body was completely peppered over with little spots like mosquito bites; they were marks of his hypodermic needle. They not only showed his perseverance but dexterity also in the application, as his back and nates were as liberally visited as his chest and thighs. He had too much of a good thing evidently, so he came and asked relief. And yet these people out here make up elegant looking anti-opium pills with morphia! The opium dealers have at least honesty, as they do not call opium by any deceptive names.

The native recipes being mostly made of licorice and gentian proved inefficacious for the end in view. Latterly Sheng Taotai of Tientsin, before he was promoted to the north, discovered a certain root which he used in his Opium Refuge in Shanghai and according to his report was unfailing with those really desirous of being cured. But none are so popular as those precious pills that come out from the foreign drug stores which happily bit on morphia! They form a convenient adjunct to opium smoking to one who is

travelling or on a ceremonial visit where smoking apparatus cannot be lugged about or where it is desirous to satisfy the craving without observation, just like those ministers who are dear lovers of the weed, while in the pulpit, would occasionally wipe their mouth and slip in a small modicum of the navy plug! Does any one imagine that the good parson is trying to cure himself of tobacco? I trow not!

Are there then any reliable methods and remedies for the cure of opium smoking, the greatest curse that can ever afflict mankind this side of the grave? Yes:—they are resolution in the patient, bromide of potassium and *nux vomica*. I remember Prof. Hammond at one of the clinics in the Belle Vue Hospital, New York, mentioning that brom. pot. might be gradually increased to the truly heroic doses of over 200 grs. in cases of epilepsy. The Professor is one of the greatest authorities in the world in his favorite department of science—Nervous Diseases. The opium habit is an artificial nervous disease and is without doubt amenable to a similar treatment. Belladonna and opium being antagonistic in the effects on the pupils, I once assisted in recovering an opium poison case by the hypodermic injection of atropine. The same may be said of stramonium and *hyoscyamus*. The bromides and bitters however will probably long continue to be the chief weapons of the honest workers against the evil. But the greatest reliance is on the resolution of the patients, which is always the most difficult to obtain. I once had a patient, wife of a store-keeper, who was and is an inveterate opium smoker. She was suffering from “slowing” of the physiological action of the intestines which the Chefoo British Consul of '81 above mentioned, considered as a benefit opium conferred on the Chinese! I at once formed the diagnosis of impacted fæces. She had latterly intense pain and no sleep and her Chinese doctors all shook their heads and said good bye to her with the injunction not to invite them any more. When I arrived on the scene, a large coffin was being built, the funeral clothes having all been ready. That very night however her pain was gone and sleep came—by a dose of chloral; and for the next few days following she did nothing but industriously defecate, proper remedial measures having being adopted.

She was agreeably surprised at the prospect of another lease of life being held out to her and I assured her that that lease might be a long one if she would only remove the cause of her complaint. She willingly and resolutely agreed to my proposal which was to cut the daily allowance of opium by small but inflexible degrees. At last it was all cut away! Then I demanded of her the keeping of her opium smoking apparatus promising to return them at such time as I should see fit, on the principle of locking up bat and ball on Sunday! She was quite agreeable to this also. But after ten days or so, she sent me word asking for her trappings threatening that if I did not return

them, she would immediately go and buy a new set! I sent them back feeling sad, that for want of perseverance a patient should return to a vice of which she had already been cured.

The most difficult factor in the hope of a cure is a stout resolution; and unfortunately opium smokers are naturally people of no resolution. The evil is indeed a calamity that deserves the active sympathy of right minded men the world over.

ERYSIPELAS.—TRAUMATIC AND IDIOPATHIC.

By ROBERT COLTMAN, JR., M.D.

In my paper written for the Conference, on the "Fevers of China," under the head of erysipelas, I made the statement "erysipelas is very rare in China." Dr. John C. Thomson in the June number of the *Journal* says: "Erysipelas is seldom met in South China, being in some ports quite unknown, and it is also infrequent in the North, though there in warm winters it occasionally tends to become epidemic." I do not know how far north the doctor alludes to but that it becomes epidemic in Peking I can testify. During a residence of seven years in the province of Shantung I saw very few cases, five patients only presenting themselves for treatment and *all* being secondary to traumatism, mostly punctured wounds. Since coming to Peking last November I have seen several cases and have heard of many others. A year ago last May Dr. Atterbury had as an in-patient in the An Ting hospital a man with facial erysipelas of idiopathic origin, while he was in the hospital Dr. G. Y. Taylor operated on a tumour of the parotid gland in another patient who was kept in a separate ward and allowed to have no communication with the erysipelas case. This man however developed erysipelas within 36 hours, face and head swelled enormously, his fever ran high, with general constitutional disturbance and death three and a half days after the operation. Dr. Taylor says there are more or less cases of idiopathic erysipelas every year, but he has not observed that they have any reference to the seasons. Early this spring I saw in consultation with Dr. Taylor a man aged 37 with erysipelas of the face and neck. This patient had a carbuncle behind the left ear which the doctor had thoroughly curetted seven days previously. There was no other case of erysipelas in the wards nor any coming to the dispensary at the time this developed. Curiously enough the wound remained free from the disease throughout its progress, and it made its first appearance on the bridge of the nose and extended from there over the face and scalp, the right ear being badly swollen, while the left ear behind which the carbuncle was situated was but slightly affected. The patient's temperature rose to 104.5 and for several days he was very ill, but under large doses of Tinct. Ferri

Chlor: and Quinæ Sulph: he recovered in about ten days. His carbuncle steadily healed all the time his head was invaded by the erysipelas and seemed to be in no way retarded by this intercurrent affection. This could not be called a traumatic erysipelas. Dr. Taylor spoke of this case to Dr. Dudgeon who remarked that at that time he had several cases of erysipelas coming to his dispensary. Drs. Curtiss and Pritchard also reported to me that they were treating cases of the disease. A month since a man of 23 came to our dispensary for a wound of the palmar surface of the right hand caused by falling from a cart. The wound was very superficial but involved most of the palm. It was washed and dressed with dry boracic acid. On the second day erysipelas set in and the hand became covered with watery blebs, high fever lasting for a day or two followed and then gradual recovery. The arm was well painted with iodine above the wrist and the disease never extended above it. As to the limiting effect of iodine applied locally I cannot speak confidently. I have seen cases where the disease seemed to be limited to where it first appeared by a good application of Tinct. Iodine about its circumference, but that it is not infallible I have had a recent proof. While the foregoing case was coming daily to the dispensary I operated for fistula in ano on a strong man of magnificent physique whom I admitted to the wards. This patient disobeyed instructions and the second day after operation left his kang, and sat in the gateway conversing with the erysipelas case. The next morning his wound became erysipelatous, his testicles, limbs, and chest, became covered with a rose rash and his general condition alarming. After several days treatment the rash was gradually fading and his condition seemed much improved when suddenly without any warning intense congestion of both lungs set in and in spite of all done to relieve him, he died with great dyspnœa conscious to the last. While this man was ill a woman aged 26, presented herself at the dispensary for idiopathic erysipelas of the face, which responded rapidly to treatment. Dr. Taylor reports having treated three cases of idiopathic erysipelas this spring, and has at present a case of traumatic origin under treatment as an out-patient. This man, age 36, has a carbuncle of the back and the erysipelas which originated there has spread under the axilla and on to the front of the chest in spite of liberal painting of iodine around the circumference of inflammation as at first seen. In view of the numerous cases herein mentioned, I feel that the disease is not as rare as I supposed when I wrote the article several years ago, although it is probably the case that there is more of it here in the North than in the South. I remember a well known professor at home once remarking that erysipelas, diphtheria, and dysentery were often mysteriously present in a locality at the same time. It has been so in this region the past few months to a marked extent. What is the reason for it?

RADICAL CURE OF HERNIA.

We beg to acknowledge our indebtedness to Mr. W. H. Harsant, for the following most interesting article, which we have reproduced from the June No. of *The Bristol Medico-Chirurgical Journal* :—

Operations for the radical cure of hernia have now become so frequent that in some of the large hospitals it is said that an operating day seldom passes without one or more of these being on the programme. Nothing very new has been introduced in the principles of operating since Bassini described * his method of lifting the spermatic cord out of the inguinal canal, and making a new track for it at a higher level; but various improvements have been suggested in the details of operating, chiefly in the direction of making the operation more thorough and radical, while there is also a general consensus of opinion that drainage should be as far as possible dispensed with. Among recent papers, the following are perhaps the most important :—

Dr. G. R. Fowler, of Brooklyn, in a paper read before the New York Surgical Society,† points out that the most conservative of advanced surgeons now agree that a hernia which cannot be retained easily, painlessly, and with certainty, by means of a truss, should be operated upon, with a view of bringing about a radical cure. Those less conservative assert that a hernia which increases in size rapidly, thus requiring frequent changes of size and shape, as well as amount of pressure exercised by a truss, should be subjected to the operation for radical cure. Also that the operation of herniotomy should always include an attempt at radical cure. It would certainly be an anomaly at the present day to witness an operation for the relief of strangulated hernia, in which the surgeon failed to make the attempt, at least, to give the patient the benefit of whatever means were at hand to prevent the recurrence of the accident.

The slight additional time occupied and traumatism inflicted can have no weight when placed in the balance with the incalculable benefit to be derived from radical cure. Under these circumstances the prognosis of the operation for radical cure becomes the prognosis of the herniotomy for necessity, and nothing more.

The prognosis as regards ultimate cure of the hernia depends upon many considerations, such as age of the patient, size of the openings,

* *Nuovo metodo operativo per la cura dell' ernia inguinale*, 1889. See also *An. Univ. Med. Sci.*, 1892, vol. iii., C—109.

† *Annual of Surgery*, Vol. XVII, Part 1.

nature of the operative procedure, and after-treatment of the patient. The best statistics give for under twenty-five years of age, fully 62 per cent. of permanent cures; in those above this age, 42 per cent. The method of operating adopted by Dr. Fowler is as follows: The sac is first opened and carefully explored, to ascertain that no adherent bowel or omentum occupies its canal. The neck of the sac is then tied, either by simply encircling it, or by a line of through-and-through stitches, in cobble-stitch fashion, chromicised gut being the material made use of in either case. The sac is then cut away beyond the ligature, and the stump allowed to fall within the internal ring. The next point is such a disposition of the spermatic cord as will permit of complete obliteration of the inguinal canal and closure of the ring. For this purpose he employs Bassini's method, modified by Postempski. This consists essentially in displacing the cord in a direction toward the median line, lifting it for this purpose from the canal after completely freeing it, and attaching it by loose loops of buried catgut suture to the abdominal wall beneath the skin. In order to still further counteract any tendency of new protrusion occurring and following the cord, he forces the cord at a point where it emerges from the ring well up into a slit made for the purpose in the upper margin of the latter, fixing it by a loose loop of catgut. The canal is then closed by "a crossed suture." The material employed is *crin de Florence*, or silk-worm gut, which is threaded at both ends upon large and full-curved Hagedorn needles. These are passed from behind forward, one through each edge of the divided lowermost layer. The latter consists essentially of conjoined tendon upon the inner margin, and Poupart's ligament upon the outer. The needles, after emerging each from its respective side, are reversed as regards position, that which passed through Poupart's ligament being now carried to the inner side and passed through the skin, again from behind forwards, while that which included the inner margin of the lowermost layer is passed through the skin at the outer margin in the same manner. By tying the sutures over the skin the incision is completely closed. The sutures are placed about three-eighths of an inch apart, and a sufficient number are employed to completely close the wound, no drainage being employed. The sutures are left in place for three weeks, and then removed by cutting upon one side of the knot and drawing them out. The patient thus operated upon is never permitted to sit up in bed for the first six weeks following the operation. No truss is subsequently worn.

Dr. Henry O. Marcy, of Boston, has collected statistics* showing the result of operations for the radical cure of hernia. In all he has collated

* *New York Medical Journal*. February 4th, 1893.

3,000 cases, and the proportion of deaths was less than 1 per cent. Among them are :—

Bassini	...	262	operations	...	1	death.
Championnière	...	254	"	...	2	deaths.
Schede	...	165	"	...	2	"
Banks	...	106	"	...	0	"
Park	...	115	"	...	0	" 85 cured.
Marcy	...	115	"	...	0	" 4 relapses.

He considers the essentials of the operation to be :—

1. Strict aseptic conditions.
2. A free dissection, in order to lay bare the internal ring, permit of the enucleation of the peritoneal sac, and the separation and elevation of the cord out of the wound.
3. The separation of the sac to its very base before removal. The sac should always be opened, and then tension should be made upon it, and sutures applied in the line of the long diameter of the internal ring; it should then be resected near its base.
4. Having freed the cord to its point of entrance within the abdominal cavity, and lifted it to one side, a row of continuous tendon sutures is inserted from below upwards until the internal ring is closed upon the cord at its exit from the abdominal cavity. The external structures are then united in the same manner with a deep double layer of tendon sutures, joining the divided muscular wall of the abdomen, and bringing into close apposition Poupart's ligament and the conjoined tendon until the external ring is reconstructed. The structures external to the muscles are approximated by one or more layers of single continuous sutures taken by means of a Hagedorn needle introduced from side to side, and in a similar manner the skin is closed with a continuous buried tendon suture. The entire operation is conducted under the irrigation of a weak sublimate solution, and the parts are afterwards dusted with iodoform before sealing with collodion. No drainage tubes are used.

The following methods of performing the radical cure of femoral hernia are quoted by Salzer* : Billroth sews the middle third of Poupart's ligament to the deep fascia, or unites it to the middle septum of the femoral sheath, using a triple silk suture. Czerny uses catgut; Schede, catgut, silk, or silver wire; the latter he has used since 1887, and finds it more certain, and also that it may remain *in situ* without harmful results. He had one relapse in four cases which he had under observation, the relapse occurring after five years. Lauenstein united the falciform process and Gimbernat's ligament after folding the sac in the manner employed by Macewen in inguinal hernia. Bergen fixes the ligated stump of the hernial sac above

* *Centralbl. für Chir.*, 1892, No. 33, abstracted in *Amer. Journ. Med. Sci.*, Jan., 1893.

Poupart's ligament, and sutures the ligament to the aponeurosis of the pectineal muscle, producing a direct union. He advises that the thigh be flexed upon the pelvis during healing.

The author believes that in all these methods, where tension is employed by means of sutures, the resulting scar-tissue is of doubtful utility, as has been shown in the relapse in Schede's case after five years, and advocates the following method, which he has employed successfully: A curved incision is made in the pectineal fascia beneath the femoral vessels, extending from near the crista pectinea to Gimbernat's ligament; a flap is dissected up, its base proximal and joining Gimbernat's ligament; the free or distal border he unites by silk sutures, without tension, to the middle third of Poupart's ligament. Thus is formed a strong fibrous septum, which he deems a practical and certain method for the radical cure of these herniæ. His researches on the cadaver have shown that the pectineal fascia varies in thickness, and his observations lead him to believe that it is thickened in persons who have worn a truss, and in general is thicker in adults.

RHUS POISONING.

BY PERCY MATHEWS, M.D.

Mr. Arthur W. Pritchard writing in the *British-Medico Chirurgical Journal* gives an account of a severe case of poisoning by *Rhus Venenata*, a case I would imagine possibly without precedent in the annals of English medical literature, and one, seeing to the prevalency of Rhus poisoning in the East necessarily of interest to the profession in China. The following is a condensed history of the case in question: "Mr. X., aged 25, a curate, having his study overshadowed by a fine specimen of the tree growing in the vicarage gardens, was persuaded to cut it down. Hearing that a gardener, three years before, had suffered from blood-poisoning after cutting off a limb from the same tree, he started on the work with a certain degree of misgiving. He procured the help of the same gardener who had experienced evil effects before. After the first afternoon's work the gardener fell ill, next day suffering from an attack of erysipelas which kept him ill for a week. Mr. X. worked at the tree a short time every day for a week, at the end of which time the tree came down. He noticed that the sap, which was very profuse, made his hands black, and he subsequently wore gloves. On October 23rd some of the juice touched his face, and he wiped it off with his gloved hand. On October

24th he had three lines of redness on his cheek, which developed in two or three days' time into an attack of facial erysipelas, and this grew persistently but not rapidly, worse. On October 30th he was so ill that he had to keep his bed: the arms, genitals, and thighs were attacked, first by a red rash, then bullæ appeared, suppurated, and burst, and large crusts formed, the exudation from under them being very profuse. His ability to take nourishment remained fairly good, and his strength kept up. The temperature never reached 103°, and his pulse did not exceed 112. The bowels were very obstinate, requiring strong purgatives before they acted; and the urine was very scanty, but not albuminous.

On the 5th of November, when I saw him, he was lying in bed with the whole of his face, throat, and neck a mass of black scabs, some of which were partly loosened by the copious purulent exudation underneath them; he was unable to see on account of the stiffness of his closed lids, and unable to masticate from the same condition of his cheeks. He could protrude the tip of his tongue, which was moist; he could swallow, and he could speak. On raising the lids, pus poured from his eyes; the conjunctivæ were swollen, but the corneæ bright and the sight good. The forearms and hands, the front and inside of the thighs, and the lower part of the abdomen were in somewhat the same condition as his face, covered with large crusts surrounded by a pink rash; but the crusts were not so black as on his face. The genitals were much swollen. The effluvium emitted by the patient was foul and peculiar. He was thirsty; but his mind was very clear. He was very querulous, complaining most of the itching of his eyes, or the burning of his skin; but was able to sleep.

This was the day after his worst day. During the next week he slowly improved, the crusts softened and came off—those on his face last—and the conjunctivitis lessened. He was able to sit up on the 9th, and, except for the painful complication of a whitlow, he made an uninterruptedly good recovery. By the 16th he was convalescent: his eyes had ceased to discharge, he was able to read and to walk, his face and arms were peeling, and there was no pitting; the moustache had to be shaved off, as it was impossible to free it from scabs; and a fortnight later he went away for a change.

The treatment throughout the case was tonic and antiseptic. The patient, fortunately, could digest well right through his illness, and he was kept up by sustaining nutriment, stimulants, and large doses of tincture of perchloride of iron. Strong aperients had to be given when necessary; and the local applications consisted of eucalyptol, iodoform and oil, and poultices to the scabs. The eyes were treated with boracic acid lotion."

Judging from a personal experience of the effects produced by the poison sumach of China and Japan (*Rhus Vernicifera**) we can but agree with Mr. Pritchard, that the case here briefly recorded must have been an exceptional one, when we recall the severity of the symptoms and the virulence of the poison. The worst case of *Rhus* poisoning which has come under my notice was that of a foreign lady, a blonde, who sent for me complaining of a swollen face and a general sense of burning pain. But having myself recently arrived in the country, suspicions of an erysipelatous nature prompted treatment and it was only on the third day I ascertained that I had to deal with a case of "Lacquer Poisoning" evidently occasioned by some recently purchased and re-varnished ornaments which were scattered around her sitting room. At this time the lips were much swollen, the cheeks enlarged and highly inflamed, eyes closed by their puffy lids, and all trace of the natural features completely lost (temperature 104°, pulse 126°). The glands of the neck and axillæ were swollen and painful, tongue thickly furred, the body, hands and feet in a condition of intense irritation and she was suffering 'agony and torture.' The treatment mainly consisted of the tincture of perchloride of iron and wine throughout—locally, carbolic acid 1 part, linseed oil and lime water 50 parts and in addition a 10 per cent. solution of carbolic acid applied to the more irritating patches.

Alternating hot and cold water gave as much relief as anything, full doses of sulphonal at night were without effect, plenty of concentrated nourishing food was insisted upon throughout, and which was well borne. At the end of the third week I somewhat unwillingly permitted my patient, well wrapt up, to take a drive in a closed carriage, which however resulted in a relapse, and still further confinement of ten days, the irritation and swelling returning but to a modified extent only. A reason apart from the pleasure of republishing Mr. Pritchard's most interesting case is that I am desirous of obtaining the views, regarding treatment, of those who have had a more extended experience in the east of this complaint, one not infrequently met with, and symptomatically so near akin to erysipelas; one certainly of an highly inflammatory nature, and strikingly displaying all the phenomena of inflammation, pain, heat, redness, swelling.

It has been interesting to note upon several occasions within the past five years, how marked an idiosyncrasy some few appear to have for this *tsihic*

* H. T. W. writing in the Journal (No. 1, Vol. iv., page 4) tells us that the *Rhus Vernicifera* of the Fukkien province grows as a bush about as large as the common sumach (*Rhus Globra*) in New England, U. S. and which it also resembles in respect to leaf and stalk, but has not the sumach cone.

The poison depends upon a volatile acid in the varnish called *tsihic acid*, from the Chinese name of the varnish *tsih*. In Japan Mr. Romyne Hitchcock calls it *urushic acid*, from the Japanese native name *Urushi*, and gives its chemical formula as $(C_{14}H_{18}O_2)$.—(Ed.)

acid poisoning, how readily susceptible some are to the specific action of the virus, whilst others are totally unaffected by it.

One last word in connection with this so-called 'Lacquer Poisoning' borne of an experience I once had not, and based upon an apparently authoritative statement, that it merely runs its course of some 10 days and is trifling. It is not trifling, not only are the symptoms alarming, the sufferings intense, but worse still, the treatment is helplessly inefficient.

MEDICO-EVANGELISTIC ITINERANCY.

By F. C. ROBERTS, M.B., C.M., *Tientsin.*

If the medical missionary of the present day possessed the gift of miraculous healing there could surely be no form of work more closely resembling that of our Lord's when on earth, and none more attractive in character than that of Medico-Evangelistic Itinerancy.

To be able, however, to journey from village to village and town to town bringing instantaneous healing to multitudes of the sick and suffering in the name of the Lord is a gift which not even "Faith-Healers" claim to possess.

Upon first thought the absence of this gift seems to be delaying the advancement of Christ's Kingdom: for had we only this power in the present day together with the mighty converting power of the Holy Spirit would not hundreds and thousands be converted where now there are only ones and twos? The experience of the Apostle Paul at Melita seems to answer this question in the negative. Though he was a man full of the Holy Ghost, and though the Holy Spirit had already come to this sinful world to convince men of their sinfulness, and although the gift of healing was present in full power, yet we read of no instantaneous conversions nor of any crying out: "What must I do to be saved"? The only visible results recorded being that the natives honoured the Apostle, and his party, with many honours and provided them with provisions for the voyage to Puteoli.

May it not be that the absence of this special gift of healing in our time is the result, not of lack of faith on the part of the Church, as some maintain, but of the will of God, who gives or withholds with unerring wisdom and always for the ultimate good of all.

It follows that medical itinerancy cannot now form as prominent an accompaniment of evangelization as it did in our Lord's life on earth: for, though there may be many simple maladies, surgical and medical, very amenable to treatment, still the majority of the cases seen on such a journey will be chronic, needing prolonged treatment in a hospital in order to effect a cure. Indeed the universal opinion of those in the work seems to be that the

value and efficiency of their work is in direct proportion to the presence or absence of a hospital.

But should itinerancy have any place in modern medical mission work? We believe it should and that the reports of journeys made by medical missionaries in China and elsewhere more than proves the value of such work.

During the spring of this year I spent a month among the villages of S. Chihli and returned to Tientsin convinced that though there is no form of work more trying to one's physical strength: for you are often busy from morning to evening with two or three meetings a day and crowds of patients, yet one is more than rewarded by the thought that one's efforts have helped to remove prejudice and hatred and to bring relief to many weary sufferers.

Concerning the medical cases seen I was struck by the extreme prevalence of acid dyspepsia. In some villages 25 % of all the cases were of this nature. Many of them had suffered for years. "Eye" cases were equally numerous, especially entropion and trachoma, for the former we operated several times. The battery proved invaluable, as chronic rheumatism and sciatica were very prevalent.

What impressed us most was the fact that wherever the medical missionary went, no matter how small the village or how short his stay, there would be many patients seeking his help. One asked oneself, Can it be that there is more sickness among the Chinese peasantry than among the English? The explanation was not far to seek. In many of the villages there was no doctor or druggist's shop and so the patient had no means of obtaining help. It followed that in some centres we were called upon to treat cases of surgical and medical maladies which had been accumulating for 20-30 years.

Never did I feel the need of China for more medical missionaries so much as during those days when the sufferings of patients exhausted by long years of pain and disease pressed upon me, and I saw only too clearly how different all might have been, had the Church of God in Christian lands only been more earnest in former years, in sending forth men and women to heal the sick and preach the Gospel in the towns and villages of China.

My general plan of campaign on this journey was to reside in those villages where we had converts and a chapel. The advantage is very apparent. By so doing we found an open door wherever we went and received not a little help from the Christians in preparing for our visit and informing others of our approach. In the twelve centres thus visited the patients came to us from a radius of ten miles around each centre.

Lastly, but of primary importance, we will refer to the reflex spiritual benefit which is likely to accrue from occasionally leaving our central city

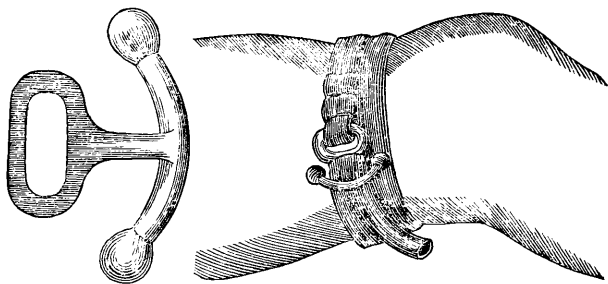
work in order to itinerate in the country. Is not our faith in the power of the Cross strengthened? and are not our hearts stirred up by the signs of the progress of the Saviour's Kingdom in our midst?

We hear much about "Rice Christians" and about the failure of Christian missions from unfriendly critics. Would that some of them could have seen what I saw in one brief month among those quiet hamlets of Southern Chibli: for I venture to say from personal observation that in them there are many Christians whose zeal, liberality, love for prayer and genuine interest in spiritual things, put to shame hundreds if not thousands of those who would feel insulted if they were called by any other name than "Christian," yet whose only claim to the title consists in mere outward conformity to certain religious customs.



SAMWAYS' TOURNIQUET CLIP.

(Anchor Pattern).—Down Bros., London.—This most useful contrivance consists of a piece of rubber tubing, furnished with a steel clip shaped like an anchor at one end. It can be applied in the easiest possible manner by first passing the stretched rubber once or twice round the limb, and then beneath one of the anchor flukes, over the shank, and back beneath the other fluke.



Soft rubber tubing is now universally acknowledged to make the best tourniquet, and the anchor clip seems to make a simple and effectual fastening.

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In Memoriam.

D. J. MACGOWAN, M.D.

We are called to record the demise of our venerable friend Dr. Macgowan. It took place on the 20th July after a few days illness, and in the 79th year of his age. He was long and well known in China, and highly esteemed by a large circle of friends. His death, so sudden and unexpected, in the very midst of his usually active life, and in the prospect of still further useful service, has left a wide gap, which it is painful on the part of many to realize. However he had arrived at a good old age, and we can only take a cursory view of the man, his manner of life, his Christian character, and the work he has done in his day and generation.

Necessarily the details to hand are few, and we know no one who could furnish particulars of many things in the past history of our friend, yet these may not be required to supply the general outline we contemplate, or add to the high estimate we have formed of the subject of our sketch.

Dr. Macgowan was born in Fall River, Mass., and came to Ningpo as a medical missionary in connection with the Baptist Missionary Union in the year 1843. This was at the first opening of the country, and though we have no account before us of his services in these early days, we may be assured he was eminently useful, like others in the same capacity, ministering to the wants of the sick and diseased in the neighbourhood. The valuable *Chinese Repository* doubtless contains particulars of his work, and information of various kinds from his pen, which he was always so ready to furnish, but we need not refer to this at present.

On his return to the United States, in the time of the civil war, he served as a surgeon in the northern armies, and made himself much respected in Washington. He came back to China in 1865, and took up his quarters in Shanghai. He began medical practice among the shipping, which was found to be a difficult and precarious thing for a man of his age, but he persevered in it as long as he possibly could. He had married a most excellent and accomplished lady, who was an English governess in Calcutta, and was a

great comfort and help to him in his missionary life, and subsequently. They had two children, but one died very young, while the other is the wife of Sir Chaloner Alabaster now in England. About the year 1878 Mrs. Macgowan died in Shanghai, which was a life long sorrow to our departed friend. It rendered him all the more unfit to carry on his work here single-handed and alone. Happily Sir Robert Hart provided a situation for him in the Customs service at Wênchow, which was a benefaction of very great value for a number of years.

While our friend was thus engaged he had leisure, as he had talent, disposition and learning, to prosecute a variety of studies, both in Chinese and English. He was exceedingly given to this kind of thing, ever inquiring into folklore and scientific themes, familiar and out of the way, and never failing to communicate the result of his researches to public papers at home and abroad. The records of different societies, especially the Royal Asiatic Society of this place, abound with articles of his contribution, and the *North China Daily News* and the *Shanghai Mercury** were favoured in no small respect in this way.

During the last year, when freed from his official work, he undertook a journey to Japan and the Loo-choo Islands. There he came in contact with the high authorities, and while adding to his information on various subjects, he had the opportunity of giving them important advice on education and civil government. On returning to Shanghai, he prepared at once to go North, as he had done previously to Manchuria and Siberia, where he was engaged on some interesting investigations. On his last journey he regaled his friends of the Oriental Society of Peking with the result of his inquiries in Japan on several points of ancient history between the two countries.

On the 15th of July he came back to Shanghai, and called the same afternoon on the writer with a long paper he had composed on the Geary Exclusion Act. He was deeply concerned about this matter, and his object was to get his paper translated into Chinese, for publication in the native newspapers here in the first place, after which he intended to proceed to Washington to present it to the President of the United States. He was promised letters by Li Hung-chang to the Chinese Minister in the States, with whom he could negotiate the subject. When he had carried this matter through, his purpose was to proceed to England, and spend the remainder of his days in the family of his beloved daughter. The hand of Divine Providence, however, was upon him, and after a few days' illness, he died it appears from sheer exhaustion, and was buried in the beautiful cemetery of our foreign settlement, in the presence of a large number of friends and acquaintances.

* Dr. Macgowan was an occasional writer for our Journal and but shortly before his death promised us a series of articles for it.—ED.

A word or two in regard to the Christian life and character of the deceased. Though long separated from missionary work, in so far as actual engagement in it was concerned, there was no cessation of his interest in it, or in the maintenance of his religious profession. He was in this respect faithful to the end, and it was pleasant to observe this at his advanced period of life, and in the midst of other things that he was following out. The writer can testify to incidents of this kind that are gratifying to think of, and which led him and others all the more to esteem and respect him. As to his general manner and appearance, he was rather small in stature, and his long white beard made him look most venerable, while at the same time he was most genial and youthful in his intercourse with friends, his remarks often sparkling with witticisms of an amusing and interesting kind. He was well informed in current events and discoveries, and ever ready for conversation about them, yet underlying the whole, there was a supreme interest on his part in the power and progress of Christian truth. Attached to his own line of things as a Baptist, there was no narrowness of mind in relation to other views and parties, and withal we cherish his memory and lament his loss, while the blessed hope remains that all is well, and having served the Master in his life on earth, he has entered on a gracious reward above.

WM. MUIRHEAD.

The Indian Medico-Chirurgical Review. A monthly Journal and Review of Indian and Foreign Medicine and the Allied Sciences. Bombay : N. K. Rao & Co. Post : Tardeo.

Dr. Choksy is to be congratulated upon the excellent number of his Review which has just reached us. The opening article is from the pen of Dr. H. Nanavatty of the *Bombay Medical Service* and is exhaustively and carefully worked out in the light of our knowledge of to-day. It must be a distinct source of gratification to Dr. Nanavatty to realize that he has independently arrived at the same conclusions at which the Leprosy Commissioners have arrived after a prolonged enquiry from arguments derived from the examination of the whole question in all its possible bearings. For from a comparative study of well illustrated and analogous facts Dr. Nanavatty deems that the contagiousness of leprosy has been greatly exaggerated and so also the influence of heredity, and he is of opinion that there is no reason why leprosy should not originate *de novo* when the constitution and the surroundings favour it. With regard to the rationale of treatment he very pertinently remarks : "The bacillus hunt is neither a profitable task nor a rational remedial measure. If the breeding operations be stopped or modified *i.e.* if the soil be made non-suitable, as the germ theorists would like to say, the particular type, bred from the ordinary units, will cease to exist."

"And this is what clinical experience teaches in the successful treatment of phthisis, by the constitutional means of improving the blood and tissues, and of wounds, by simple cleanliness and by drainage, which really means the removal of the soil or food and surroundings on and in which the micro-organisms grow and thrive, and assume particular importance, by showing the stuff on which they are *bred* and of which they are made. As distinct and individualized types, do they indeed bring into being, or are they not rather brought into being by what feeds them and *lifts* them out as particular units from the general mass of organisms? The dog, with a wounded paw, is not in mortal dread of his microscopical enemies. He *licks* them clean by simply licking his wound clean, and getting rid of the dead putrescent matter in the wound, which breeds these germs. He will have no bacillus hunt. Is it rational, then, to be squirting poisons against, and firing shots at, the bacillus in the system, and let alone the soil that brings them into being? The soil remaining the same, they will be produced as fast as they are destroyed. Often the bacillus requires stronger poison than his hosts, the patients, and thus the hosts themselves get despatched, long before the bacillus, their guest, is reached, and the designs on the bacillus prove abortive. The bacillus lepræ should be let alone, and the remedy sought in another direction—on the analogy of the treatment of syphilis and phthisis. The remedy should be of such a nature as will counteract, as does constitutional treatment, assisted by lime, cod liver oil and arsenic in phthisis, and mercury and iodide in syphilis, the degenerative changes in the blood which induce the leprous nerve and connective tissue degenerations. Resorcin and Icthyol do not seem to possess such specific properties, and they cannot, therefore, rightly claim the curative properties assigned to them."

Leprosy is again the subject of the next paper, being an abstract (continued from a former number) specially prepared for the Review of the *Report of the Leprosy Commission in India*. The first section of this abstract treats of *Hereditary Transmission and Predisposition*, and after due consideration of all the evidence obtained by means of an examination of over two thousand cases the Commissioners have come to the conclusion "*that leprosy in India cannot be considered an hereditary disease, and they would venture to say that the evidence which exists is hardly sufficient to establish an inherited specific predisposition to the disease by the offspring of leprous parents to any appreciable degree*". Several pages are devoted to statistics the following summary of which will suffice for our purpose:—

"It may fairly be concluded that marriages among lepers, and with lepers, do not increase the risk of a diffusion of leprosy by means of the offspring, and that this to a great extent is due to the relative sterility of lepers, whether males or females.

The Commissioners state that they have come to the conclusion, that there is no evidence that leprosy in India is transmitted through heredity from parent to child, their reasons being:—

(1) No authentic congenital case has ever been put on record, nor was one seen in this country.

(2) True family histories of leprosy could be obtained in only 5 or 6 per cent. of the cases.

(3) Many instances occurred of children being affected while their parents remain perfectly healthy.

(4) The percentage of children, the result of leper marriages, who become lepers, is too small to warrant the belief in the hereditary transmission of the disease.

(5) The facts obtained from the Orphanage at the Almora Asylum disprove the existence of a specific hereditary predisposition.

(6) Only 5 or 6 per cent. of the children born after the manifestation of the disease in the parents become subsequently affected.

(7) The histories of the brothers and sisters of leper patients with a true or false hereditary taint seem to show that little importance can be attached to inheritance as an agent in the perpetuation of the disease.

With regard to the contagiousness of leprosy the Commissioners have from their observations come to the following conclusion: That though they consider leprosy an infective disease, caused by a specific bacillus, and moreover also a contagious disease, they are of opinion that there is not sufficient evidence that leprosy is maintained or diffused by contagion; indeed, under the ordinary human surroundings, the amount of contagion which exists is so small that it may be disregarded, and no legislation is called for on the lines, either of segregation, or of interdiction of marriages with lepers."

After exhaustive enquiry they state that clinical evidence for India is strongly against a measurable contagiousness of leprosy, and all that has been said of tuberculosis may be applied equally to leprosy. The following extract must for the present close our review of this most interesting paper:—

"Of 1,691 healthy people living with 719 lepers, 95, or about 5 per cent., were affected with the disease; but diagnosis was doubtful in 17 cases.

Of 381 married couples living together, one of each couple being a leper, 25 subsequently became affected, or 6.5 per cent. Deducting 6 cases from these, the ratio stands at 4.9 per cent.

In 222 couples, of which one individual became a leper and continued to live with the other for a period of less than five years, only 5 became tainted or 2.2 per cent.

Of 69 asylum officials, only 3 were affected with leprosy. Of these, one had the disease before he entered the service, and a second case is doubtful, so that actually only one out of 69 had become tainted, or 1·5 per cent.

Of 35 healthy persons living in intimate contact with lepers in the asylum from a period varying from 28 years to 1 year, and all personally examined by the Commission, not one was affected."

OFFICIAL NOTICE.

The following have been duly elected members of the Association, viz., Miss M. A. Gifford, Miss Lucy Gaynor, and Mr. W. R. Faries.

The following amendment to Article VII of By-Laws has been carried: "The yearly *subscription* to the Association shall be Three Dollars in advance and shall include the Journal of the Association. All payments are to be made to the Publishers of the Journal."

SYDNEY R. HODGE, M.R.C.S., L.R.C.P.,

Hon. Sec.

NOTICES OF BOOKS.

Life and Letters of Samuel Fisk Green, M.D., Medical Evangelist to the Tamils, Compiled by Ebenezer Cutter, D.D. Printed for Family Friends. Pp. 436. 1891.

In 1754 a distinguished clergyman and physician of Leicester, England, purchased for his son Dr. JOHN GREEN, then a youth of nineteen, a residence in Worcester, Massachusetts, who there and then commenced the practice of his profession, in which he attained distinction. He was grandfather of the subject of this biography, who was born October 10th, 1822, and who discharged the duties of a medical missionary twenty-two years among the Tamils in Jaffna, Ceylon, and when his health failed he spent eleven years at his ancestral home, Green Hill, Worcester, in the work of translation, compilation and composition of a vast amount of information relative to medicine, surgery and collateral sciences up to date for the use of Tamil physicians, whose instructor he remained until he entered on his rest May 23rd, 1884 in his sixty-first year.

The volume before us, which pious, fraternal and sisterly affection presents as a tribute to his memory consists mainly of letters that he had addressed to them, to his children and friends which disclose a gentle nature, a refined cultivated mind and an inflexibility of purpose in the prosecution of the medical missionary enterprise.

He was a graduate of the College of Physicians and Surgeons of New York, taking his degree in 1845; two years later, when twenty-four years of age he entered the service of the American Board of Foreign Missions as a medical missionary to the Tamils. Before commencing the study of medicine he was deeply interested in foreign missions; and he took employment under the Rev. Dr. VAUGHAN, Secretary of

the Protestant Episcopal Board of Missions. Not long after entering on the practice of his profession he asked himself, "Why, is it not better for me to go where I can be very useful, as well in my profession as otherwise, at once—go to a land of darkness and heal the bodies and enlighten the minds of some error-bound people; and he came to the resolution to do the work of a missionary either personally or by proxy.

A few days after his arrival at Jaffna he was called to prescribe for a Tamil and Sanscrit Pundit, whose condition was considered hopeless; the patient was found suffering from an abdominal abscess, which Dr. GREEN opened and healed to the astonishment of the peninsula of Jaffna. "In addition to his services as a physician and surgeon he applied to every patient the spiritual remedy for the cure of the soul," employing necessarily at first an interpreter, but in a short time he became a fluent speaker.

In the first year he had treated two thousand five hundred and fifty-four, about a third being surgical cases, removal of a left upper jaw and cheek bones for a cancerous fungus in the antrum filling the whole mouth and nostril, several cataracts, minor amputations, fractures, a strangulated hernia and several cases of difficult labor. By the beginning of the third year he found himself tolerably proficient in the written language, a language so difficult, it is said, "that a man may be a diligent scholar in Tamil for fifty years, and yet meet with works in that language which he cannot read." A vast amount of labor has been expended in polishing the language, Tamils having naturally acute minds, fond of metaphysics and knowing no true science upon which to expand their powers, they have lavished

thought and ingenuity on their vernacular tongue.

He had no sooner gained a good command of the written language than he felt a strong desire to provide a medical literature for the Tamils. He saw the necessity of medical science in the vernacular, in order to their deliverance from the barbarous notions and practices which had been the heritage of successive generations and ages. There were similar if not greater difficulties in putting science into their language than there had been in putting the Gospel into it. Commencing with a medical vocabulary he published in Tamil during his career nearly four thousand pages octavo.

Not content with discharging the duties as Superintendent of the Jaffna Friend-in-need Society's Hospital and daily attendance at the American Mission Dispensary and his medico-literary toil, he organized a medical school, carrying his pupils through a regular course of study, graduating with diplomas, which not merely certified their qualifications but made them sought for by the English stations in the country; his graduates as physicians numbered no less than seventy, all whom he imbued as far as possible with his own moral and religious principles, that they also might do their work as they saw him trying to do his.

"Medical education in Ceylon" wrote Dr. GREEN, the Colonial Surgeon (a Tamil) at Colombo "is deeply indebted to you. You have loosened the foundations of quackery, and I trust it may please God to bless us also in our efforts to place the medical practice among the natives of this island on a more rational and scientific basis. Your Tamil works on medicine will remain a memorial of you after you are gone, and you will not soon be forgotten. We as natives of this island are much indebted to the American Mission for their efforts in the cause of Christianity, civilization and science." The Governor called attention to the "good service which he (and Dr. SCUDDER) were

rendering to humanity and enlightenment by the education of native medical students and to the translation of medical works into the vernacular of the country;" towards which labors the government made liberal grants.

After eleven years' service failing health compelled him to visit his early home; on the way he embraced the opportunity to enlarge his knowledge by visiting Paris, London, Oxford, Edinburgh, Dublin and other places. Dr. COLDSTREAM of the Edinburgh Medical Missionary Society was particularly cordial in his greeting.

Just before his return to Ceylon Dr. GREEN was married; his second period of labor was eminently fruitful. His attention was called by the Government to the need that existed for a work in Tamil on Medical Jurisprudence. "Our Judges in Criminal Courts know nothing whatever about legal medicine and justice is often frustrated through such ignorance. The Dewan suggests the preparation of a simple treatise on the subject, suited to the capacity of men who had not received a medical education." That work Dr. GREEN also supplied. Anatomy, chemistry, natural philosophy, physiology, materia medica, practice of medicine, surgery, obstetrics, diseases of children, diseases of women, pharmacy and botany were the other subjects of his medico-literary toil—to which should be added a Tamil-English Medical Dictionary, also he published religious tracts in English. When on a second visit home for health it was found unadvisable for him to return to Ceylon he reluctantly submitted to necessity and spent the balance of his years in the work of translating and revising medical works in Tamil. His writings are in India and Ceylon recognized as standard authorities.

"His intellectual powers were unimpaired and unobscured to the end, his assurance and anticipation of the world to come were such as to make the prospect of a possible continuance here, even for a few

months a disappointment. Though not yet an old man he knew his work was done. He would be the last to characterize it as perfect, but it seems as well-rounded and finished as possible with his limitations." His perseverance and zeal may be best seen in the number and character of his graduates, who are at this moment doing immense good in various parts of Ceylon and India. "His anxiety to win souls to Christ was not inferior to any missionary. He was indeed a successful preacher of Christianity."

Very touching are the expressions of reverence entertained for him by his pupils many of whom occupy posts of great responsibility. Dr. ETHEMAYAKAM writes: "Dr. GREEN was an earnest Christian worker; he used to speak of Christ to all and every one. 'The Goo-roo Doctor'—the missionary doctor—is a household word among all people. He is an undisputed authority on medicine and surgery among the Tamils. He shall be our illustrious 'Agastier' in future in all Tamil lands; his translation of Western medical works into the Tamil language will secure him this distinction." Another, Dr. KANAKADATTINAM, Government Health Officer, writes: "We learned more from copying his life than from the lessons that he taught us. He had the tact of making patients laugh even when the tears were flowing from the pain of operations." Another Tamil physician, a former pupil, says: "His free intercourse with the masses of the people enabled him to acquire a thorough knowledge of the colloquial language. So far as I have known he rarely allowed an opportunity to slip without telling a word or two about the great Physician. When he visited the sick in their houses he generally squatted by the bed side

of the patient according to Oriental custom, and by his funny words and cheerful looks generally made even the worst of his patients to smile." Much more of the same purport might be given if space allowed, which with extracts from his loving letters would serve further to endear the memory of Dr. GREEN, to all our readers.*

D. J. MACGOWAN.

Webster's International Dictionary. G. and C. MERRIAM & Co., Springfield, Mass., U. S. A.

That this magnificent work is the rightful heir to the pre-eminent favour which for more than half a century has been given to the great work of Noah Webster and its successive revised editions is incontestable.

We are told that, apart from a large number of interested scholars, upwards of one hundred paid editors have been engaged upon it for the past ten years and a sum of three hundred thousand dollars been expended in carrying on its various departments.

As a small indication of the exhaustive research involved in the more than revision of this remarkable work, we may note that for the first time—we have found the derivation of the work *Moza*.

It is distinctly our honest conviction that this Dictionary of the English Language is perfection, in as far as human skill, endeavour and intelligence can attain it.

[*Little could we realize that we were to publish the last of the many writings of this good kindly old man. Among his last acts must have been the correcting of the proofs for this review, which only reached the publishers the day following his death. —Ed.]

HOSPITAL REPORTS.

HAO-MENG-FÔNG HOSPITAL, NINGPO.

April, 1892—March, 1893.

This report,—in the absence of the medical officer,—is written by the Revs. HOARE and MOULE; and though brief, and of necessity relating rather to the missionary, than the medical aspect of the work, is nevertheless encouraging.

We note that 211 patients,—of whom 39 were opium-smokers,—were treated in the wards of the hospital. The out-patients during the year numbered 4,505. The patients who attend the dispensary, hear the Gospel daily, "but," the Report says, "It is with the in-patients who stay with us for some time, that we see most fruit, and it is constantly our privilege to send patients away, with letters of commendation to some member of our own, or of some other mission. Other patients have to be followed up, into some hitherto unworked locality by catechists, or Bible women, as the case may be; and we hope that in this way new doors may be opened for the Gospel."

Certain it is that this following up is a most important part of medical work, for most patients get at least a friendly impression of the foreigner and his work, which leaves him open to further influences for good, if he is not lost sight of.

Two instances are mentioned in which the medical work has borne good fruit, one in connection with the dispensary work, the other with that of the hospital. A man from Cü-kyi coming for medicine, heard the Gospel; and this has led to him and his family becoming applicants for baptism. The other instance is more remarkable, as showing how patients who had learned something of God's truth in the hospital, carried it to, and published it in

their homes in a distant district, where a Church grew up which now numbers some 300 members.

The writers of the Report conclude "We would take this opportunity of again expressing our gratitude to Dr. DALY, for the unremitting zeal, skill and kindness, which he has shown in starting this work for us, and in carrying it on without remuneration for eight years."

We trust our brethren of the C. M. S. will soon again have a congenial medical colleague.

MEDICAL MISSION WORK OF C. I. M., CHEFOO.

April, 1892—March, 1893.

During the year under review, 163 patients have passed through the hospital, while over 9,000 out-patients, (attendances,) have been treated in the dispensary. The operations requiring chloroform were 99.

The spiritual results are referred to with caution, for it is admitted that "the average Chinaman is an unfathomable depth" which conclusion is fully endorsed by most missionaries of experience, and yet it is recorded, "several in-patients have professed faith in Christ, but as they all live from two or ten days' journey from here, we have no means of knowing whether or not, they remain true to their profession after leaving us." These should be followed up if possible, but it is clear that a busy physician cannot do it, and this Dr. DOUTHWAITE evidently feels, for he says, "Without such visitation, it is impossible to find out the results of one's work. To be ever sowing, and never reaping, casting nets into the sea, never dragging them to the shore, is very unsatisfactory work; and this is what much of the medical work in China amounts to, through lack of laborers."

Several instances of fruit gathered are referred to at length under the head of 'reminiscences.' They recall the work of years gone by, and they are full of interest and encouragement. Some of these men were known to the writer; they were indeed good men and true.

The Report concludes by recounting the conversion of an opium-smoker, who had smoked the baneful drug so long that he was reduced to a "mere anatomy," and was dubbed by his friends an opium-ghost. He became "chang'd into a robust well formed man, and the sallow wrinkled face of the opium-smoker was completely transformed, under the healthy influence of a good appetite, and a peaceful mind. Encouraging accounts still come from those who know him, of his progress in the Christian life. He is now the unpaid leader of a little Christian Church in Wenchow, Chehkiang.

THE CANADIAN PRESBYTERIAN MISSION,
NORTH HONAN.

Report for 1892.

Our Canadian friends in Honan send us a very interesting and well-written Report. Theirs is a young mission, and a new work. They have two stations with medical work at each.

At Ch'u-wang, Dr. McCURE reports 1,718 dispensary patients (visits) treated in about ten months, which is but a small advance in numbers, upon the eight months' work of 1891. The in-patients however numbered 96, of whom 74 were opium-smokers. "Of 1,103 dispensary new patients, 106 or nearly 10 % were cases of ague, which was very prevalent on account of the heavy floods. One patient from 250 miles away was brought to the hospital through the advertisement on a tract which had found its way to his distant home."

At Hsin-chen the missionaries have, during the year, passed through their baptism of trouble; and we rejoice with them that

they come through so well. Our God is a very present help.

The Report says: "On one anxious day, for five hours, the members of the station stood out on the street at the door, facing and controlling the rabble, and were cheered not a little by assistance from friendly neighbours. The street chapel has been opened regularly for over 300 days, and the attendance and order have been a source of great encouragement. . . . At the beginning of a large fair, the roof was torn off the best building in the compound, by a gang of roughs who had been well-plied with wine by the gentry; but at that same time, the chapel was packed to the door without intermission, and not the slightest sign given of any knowledge of what was transpiring next door. Nor was the preaching, or medical work, for a moment interrupted by that occurrence."

In the month of June the first fruits of the mission were received into the Church in the persons of Messrs. CHOU, father and son.

At Hsin-chen the attendances at the dispensary amounted to 4,677, tripling the number seen in 1891. The in-patients numbered 77, of whom 24 were opium-smokers.

PONASANG MISSIONARY HOSPITAL,
A. B. C. F. M., FOOCHEW.

21st Annual Report.

This is a record of earnest busy work. 14,658 visits were made to the dispensary during the year ending March 31st, 1893. Of these 5,041 were new cases.

The in-patients numbered 420, one-seventh of which were syphilitic cases, in one or other stage. The operations,—including 367 teeth extracted,—amounted to 753.

During the twenty-one years, the total number of cases treated reach 170,078, while the number of operations performed during the same time amount to 10,671.

In the summer time, the hospital was crowded. "Many times all the beds were full, patients who could not be given beds, sleeping on the floor, until vacancies occurred."

With regard to leprosy, which seems to be common enough in Fuhkien, Dr. KINNEAR writes: "In Foochow, no age seems entirely exempt from the disease, several cases of little boys of ten and twelve years of age, and even younger, having been seen. The impression left upon our minds by the work of the year, is that this disease must be more common, than is usually supposed. In the cases seen here, a majority show the anæsthetic red patches first on the legs, another large proportion upon the arms, few upon the face, and very seldom first upon the body."

The reasons given, why the Chinese wish

to be operated upon for hare-lip are amusing, but none the less true.

The account of the extraction of tooth-worms shows the present condition of the dental art in China.

The most sad case of the year is, we think, that of a young man,—who though an opium-smoker, a thief, and a disgrace to his family,—was inhumanly treated by his father, who waiting until he was asleep, rubbed a handful of quicklime over his son's face, and into his eyes, destroying his sight and cruelly disfiguring his face. And the laws and customs of China allow that to pass without reproof.

Oh for more Gospel-leaven, by healing and by teaching, with God's blessing resting upon both.

H. A. R.



CORRESPONDENCE.

WILLIAMS' HOSPITAL.

PANG CHUANG, SHANTUNG.

To the Editor of

"THE MEDICAL MISSIONARY JOURNAL."

DEAR DR. MATHEWS.

Having seen the establishment of our Medical Missionary Society and Journal during the period of my service in China, and rejoicing as I do in the fellowship thus made available to us, another bond seems to me to be desirable and easily attained.

If our Association could become a part of the International Red Cross Society, would not a new tie be added to our local brotherhood, and a world-wide connection be made also.

It is claimed that forty nations are now pledged to respect the insignia of this great Society, to hold all its material and stores and all its followers neutral in war, and free to come and go as their duties require.

I do not know whether or not China is reckoned among those forty nations, but if not the influence of all medical mission hospitals under the Red Cross would doubtless go far to bring this great country into fellowship with sister nations under the Geneva Treaty.

In case of war here in China, foreign or domestic, our medical missionaries would doubtless gladly act as surgeons, if their duty seemed to call them to the field, and no doubt any missionary society would readily release its missionaries for such service even if regular mission work were not interrupted by the war.

In such case the Red Cross Society would assume the natural and effective direction of such individuals. China we know full well has no surgical service for army or

navy, and those of us who have watched the course of her most enlightened statesman H. E. the Viceroy Li Hung-chang for a dozen years or so in relation to this department, have had our lively hopes chastened by experience, until we view with very moderate anticipation even the large foundations which are being laid on the Taku Road next to the Viceroy's hospital.

The great buildings that stand empty and useless on the other end of the Bund are mournful evidence of how little performance may come from great promise, and the great burdens that are laid by the imperial government on this faithful servant, in the multifarious offices he is expected to fill, are more than enough to overtax a younger and a stronger man. We may reasonably expect therefore that the imperious requirements of foreign relations, of railroads, telegraphs, etc., etc., will continue to crowd into the background their less obvious necessity.

If therefore in Western lands where surgical service is so highly organized there is call for the Red Cross Society, how much more here.

But there are other reasons than the anticipation of a possible state of war to move us to some such step as this. The Society of the Red Cross although in its inception designed to mitigate the horrors of war, may legitimately enlarge its scope to include service in other great calamities. In the United States of America, while affiliated in international relations with the Red Cross Societies of all countries, it yet holds itself ready for all great emergencies, and has done valuable service in such disasters as the Johnstown flood, etc.

The recent gift of a tract of valuable land by Dr. JOSEPH GARDNER of Bedford

Indiana, gives the society a place in which to prepare and accumulate its stores and materials, to be in readiness for any emergency, and a domain inviolable in time of invasion.

We Americans hope that our country may never again be the theatre of war, and hence it seems the practical thing to unite the functions of providing relief for all untoward public calamities in one great eleemosynary society.

Our members are probably aware that an international convention is called this summer in Vienna by Dr. PRIX, its Mayor and Prof. BILBROTH, to establish an international society of Good Samaritans; the motto of this society will be, "But a certain Samaritan as he journeyed came where he was and when he saw him he had compassion on him."

Its object will be to provide help for any people overtaken by great calamity such as earthquakes, floods or cholera epidemics, discharging in peace duties similar to those discharged by the Red Cross in war. And in the event of war its members are to be at the disposal of the Red Cross Society.

There may be necessity for these two societies in Europe where the peace of nations is liable to be disturbed any day. But in America the situation is more hopeful and the natural argument in favor of simplicity and economy have urged to the one organization.

The same arguments become pertinent to the question here in China also.

In case the idea strikes our members favorably, with which society should we become affiliated? or should it be with both?

It seems to me that as our mission hospitals are already as perfect exemplifications of the Good Samaritan idea as can well be found anywhere, the one grand symbol of the Red Cross over every hospital and on the arm of every surgeon and assistant would be enough to testify to the

common service which we gladly render. "For His Sake, and in His Name."

Will the readers of the Journal be pleased to discuss the matter in its columns as they may view it, that we may have all the light possible preparatory to future action if that should be deemed desirable.

Fraternally yours,

A. P. PECK.

[We are assured that the *principle* involved in the affiliating of the Medical Missionary Association of China with that of the International Red Cross Society will be very generally and heartily endorsed. But the question here submitted to us is not one to appeal to our sympathies only, but one we may hope will have a thoroughly practical outcome. A difficulty however presents itself and one although begotten of almost exceptional conditions, is nevertheless still one to be anticipated. It is this, will their Society, and their flag, the emblem of one common humanity, however much approved and officially *protected*, be respected by the Chinese themselves? The question truly seems a shameless one, yet it is very relevant in the light of to-day. If in time of peace foreign property is ruthlessly destroyed and innocent lives sacrificed to unheard of barbarity, how then can we realize that this people in time of war would become amenable to international civilized usages? However, apart from the consideration of what we hold to be so essential a weakness in the practical working of the schemes as applied to China, still there is much as Dr. PECK has pointed out to be urged in favour of affiliating the two Societies, the material goal is a common one and the danger indicated will be slowly but surely eliminated by the natural process of time.—

Ed.]

PANG CHUANG,

July, 1893.

DEAR DR. MATHEWS,

Allow me to add a word to Dr. PECK's valuable suggestions in regard to the medi-

cal fraternity in China affiliating with the Red Cross Society. Aside from the helpfulness and bonds of sympathy which might unite us with many thousands of fellow philanthropists in many lands, there is to be added the thought of the possible protection which might ensue to the mission centres in China, in case of trouble. The International Society throws the ægis of its protection over all military hospitals. Were our seventy or one hundred medical centres in China to become allied with the Red Cross movement, we should be in a position to seek of the Chinese Government more than a common protection not merely in case of war, but also in case of any riotous disturbance. With its frequent spasms of sagacity and good sense, the Chinese Government could be impressed alike with the wisdom and humanity of granting to all Red Cross centres practical immunity from the disturbing elements which still hover as heat lightning along the horizons of our 'spheres of influence.' Dr. PECK's suggestion is so hopeful of permanent advantage that I hope very much the discussion he suggests may be followed by an effort at organization and union with the international Red Cross Society.

Sincerely yours,

H. D. PORTER.

—
2nd September.

DEAR DR. MATHEWS,

I am in full sympathy with the objects of the Red Cross Society, and should be glad to see it established in China. But should this country ever be invaded by a foreign army, that innate hatred of all Europeans of which the natives have given so many proofs lately would certainly lead them to consider every white man an enemy, and no badge would protect him from the savagery of Chinese soldiers if at any time they were victorious. If the Chinese could themselves be induced to form a society having the same objects as the Red Cross organization, that would be advisable, but where

will you find fifty men sufficiently unselfish to undertake such a task? Such efforts are essentially Christian in character, and altogether foreign to Chinese ideas. However, I shall be glad to see the proposal fully discussed in our Journal.

Fraternally yours,

A. W. DOUTHWAITE.

—
PEKING,

July 25th, 1893.

MY DEAR DR. MATHEWS,

I do not know under what circumstances the communications of Messrs. DZAU, ZUNG, TSING and YEA were published in our last number of the Journal. "Circumstances alter cases" and it may be that if I understood all about it, I would see the fitness of publishing four letters from gentlemen discussing a political measure, in a Journal devoted to medical missionary interests. While I greatly regret the "Geary Exclusion Bill," as do all our American missionaries, I for one prefer to have discussions of political questions appear in the daily papers. These gentlemen in question must have been badly treated by Americans to become such bitter accusers.

Yours fraternally,

ROBERT COLTMAN, JR.

[We must frankly admit that it never occurred to us that the publication of an examination essay by four Chinese lads and facetiously described as a 'Symposium' would be seriously construed into the publishing of a political contribution. We were simply amused at so ingenuous a production in the light of all that which has happened in China, and deemed that others would equally be amused and perchance instructed. However as to not touching upon the 'Geary Act' in our Journal pages—we must join issue with our friend Dr. COLTMAN—for not only has it been discussed over and over again in papers of all classes and denominations, but seeing to the fact how deeply we, who

are resident in China are interested, it is with distinct propriety that we refer to it in the Medical Missionary Journal of China.—Ed.]

25 LIME STREET,

London, E.C., June 8th, 1893.

The Editor of

"THE CHINA MEDICAL MISSIONARY
JOURNAL,"

Shanghai.

DEAR SIR,

We beg to hand you herewith samples of Analgen (Dr. Vis) which we are now introducing to the profession in the country. The pamphlets enclosed will give you full information concerning the remedy with numerous reports of medical men who have tested it in Germany.

The manufacturers Messrs. DAHL & Co. of Barmen are fully convinced by the results of the experiments already made that Analgen will fill a want that has been felt for some time, and have instructed us to supply free samples to all hospitals and medical men willing to test it.

Yours truly,

THOMAS CHRISTY & Co.

[In acknowledging the samples referred to above, we would explain that the pamphlets accompanying the 'preparation in question state that Analgen is the analogue of Phenacetine and Antifebrine, but has a marked therapeutic and physiological action of its own. We are not in a position yet to add our testimony to the many advocating the claims of this "powerful anti-neuralgical

preparation" but shall hope to have occasion for so doing later on.—Ed.]

NEW ORLEANS,

June 20th, 1893.

DEAR SIR,

Desiring to present an article on the subject of "Complications of Tonsillotomy" at the next annual meeting of the Louisiana State Medical Society, I would request your readers to favor me with answers to the following questions:—

1. Number of cases of Hypertrophy of faucial tonsils operated upon.
2. Complications occurring during these operations, stating nature of complications and number of cases affected.
3. Method of operating in the cases in which these complications developed.

In publishing these cases, I shall omit the name of the physician who reported them if desired.

I shall mail a reprint of the article, which I shall present at the meeting, to those physicians who send me a report of their cases, as above. Letters should be addressed to W. SCHEPPEGRELL, M.D., care of Eye, Ear, Nose and Throat Hospital, New Orleans, La.

Very respectfully,

W. SCHEPPEGRELL, M.D.

[We would commend Dr. SCHEPPEGRELL's request to the courteous consideration of the Association.—Ed.]

MEDICAL PROGRESS.

SIR JOSEPH LESTER in an address on the Antiseptic Management of Wounds, delivered at King's College Hospital in the London Post Graduate Course, says: (we quote from, *British Medical Journal*, February 18th 1893). "An external antiseptic dressing to be ideally perfect, should have four essential qualities. It should contain some thoroughly trustworthy ingredient; it should have that substance so stored up that it cannot be dissipated to a dangerous degree before the dressing is changed; it should be entirely unirritating; and it should be capable of freely absorbing any blood and serum that may ooze from the wound." With regard to the most satisfactory antiseptic ingredient after much experimentalization, Sir JOSEPH speaks most highly of the double Cyanide of Mercury and Zinc (concluded by Professor DUNSTAN to have the following formula: $\frac{1}{2}\text{Zn Cy}_2 \text{ Hg Cy}_2$; it is a double salt of very peculiar construction). "Cyanide of Mercury, while it has powerful antiseptic properties, is very soluble and highly irritating; but the combination of Cyanide of Zinc with it has the same sort of effect, but in a much higher degree as the albumen of the sero-sublimate gauze has upon the bichloride. The combination with Zinc keeps the Cyanide of Mercury from being dissolved away, and also prevents it from irritating. It is, so to speak, chained down by the Cyanide of Zinc with which it is combined. The double salt is very little soluble in blood serum, requiring between two and three thousand parts to dissolve it; and thus a small quantity of it will last a long time in spite of a free flow of discharge through it. It thus fulfils the condition of persistent storage. It is at the same time practically unirritating; wounds heal under

its immediate contact without the necessity for a protective layer interposed. Then, as to the essential question of its antiseptic virtues. Small as is the quantity which serum dissolves, it proves amply sufficient to prevent bacteric development. Thus in one experiment some serum of horse's blood containing $\frac{1}{10000}$ part of the salt remained clear and odourless for more than a fortnight at the temperature of the body in spite of inoculation with putrid material, and even $\frac{1}{100000}$ part prevented all growth for ten days. "——." The double Cyanide of Mercury and Zinc, while admirable as an exhibitor, is very feeble as a germicide; so that we can have no security that materials charged with it may not contain living organisms. Hence if gauze charged with the double Cyanide when applied dry to a wound, the time might come when, if the discharge were free, the salt, in spite of its slight solubility, might be all washed out of the deepest parts of the dressing; and as soon as this should be the case, living microbes contained in it would be free to develop towards the wound. In order to guard against this risk, we treat the gauze before using it with a reliable germicide. That which we now use for the purpose is the 1 to 20 solution of Carbolie Acid which, besides being thoroughly effective, has the further advantage that it soon flies off from the dressing and leaves nothing in contact with the wound but the unirritating double Cyanide and cotton fabric." Another valuable suggestion Sir JOSEPH gives us with regard to the preventing of the powder dusting out of the gauze on the slightest touch and irritating the nostrils and that is the introduction of the hydrochlorate of Mauveine, more commonly known as purified Rosalane. "For

charging gauze it is diffused with pestle and mortar in 1 to 20 solution of Carbolic Acid in the proportion of about 30 grs. to a pint." It must be noted that Rosalane—not only serves for the purpose of fixation—but owing to its colour ensures a uniform diffusion of the salt throughout the mass. And lastly we quote with regard to the technique of this antiseptic dressing. "I have here a 6-yd. piece of unprepared absorbent gauze folded lengthwise in eight layers. I soak this thoroughly with 1 to 20 Carbolic lotion, and dust some of the powder roughly over one surface with a pepper-box. I then roll it together, and kneading it for a minute or two with the fingers. . . . If you have no absorbent gauze at your disposal, linen rags, which are excellent in absorbing quality, may be quite well charged in a similar manner. This old towel which has been so prepared if folded a few times would make a perfectly satisfactory dressing." We ascertain later on that the dyed Cyanide is now supplied by Messrs. Morson, Southampton Row, London, its cost is 20 shillings and the estimated cost per charge per dressing 1½d.

The *Universal Medical Journal* for the month of February contains an article by Dr. T. B. MATTISON entitled "The MATTISON Method in Morphinism." The following extracts will, we believe, be of interest to the profession in China.

Dr. MATTISON in the first instance recounts the different methods of treatment now advocated and which are sufficiently well known, and then speaking of his own, says:—

The method we commend is a mean between two extremes, avoiding the painful ordeal of abrupt disusing and the tiresome delay of prolonged decrease, and is based on the power of certain remedial resources to subdue abnormal reflex action, and secures largely two cardinal objects,—minimum duration of treatment and maximum

freedom from pain. It consists in producing a certain degree of nervous sedation, and consequent control of reflex irritation, by means of the bromides, though we refer specifically to the *bromide of sodium*, having used that exclusively in cases under our care. This is merely a new application of a well-established principle, for the power of the bromides to subdue abnormal reflex irritability is so constant that it may be looked upon as an almost certain sequel of such medication. Dr. EDWARD H. CLARKE, in his valuable treatise on the bromides, says: "Diminished reflex sensibility, however different physiologists may explain the fact, is one of the most frequent phenomena of bromidal medication that has been clinically observed, and is, therapeutically, one of the most important;" and the evidence of other observers—GUBLER, GUTTMAN, LABORDE, VOISON, DAMOURETTE, EULENBERG, CLAUDE BERNARD, BROWN-SÉQUARD, and ECHEVERRIA—is to the same effect.

In speaking of the bromide of sodium, let it be understood that we refer entirely to the influence of the *continued dose*, by which we mean giving it twice in the twenty-four hours, at regular intervals, so as to keep the blood constantly charged with the drug. The value of the various bromides depends on their proportion of bromine. Bromide of potassium contains 66 per cent., sodium 73, and lithium 92 per cent. We should therefore, expect a more powerful influence from the last drug, and, according to WEIR MITCHELL, it has a more rapid and intense effect. The sodium, however, answers every purpose, and has several points in its favor over other bromides,—is pleasanter to the taste, more acceptable to the stomach, causes little cutaneous irritation, and much less muscular prostration.

"Either of the bromides in powder or strong solution is somewhat irritant, sometimes causing emesis, and in any event delaying absorption. A practical point, then, is that it be given largely diluted. Dr.

Clarke says: "There should be at least a drachm of water to each grain of the salt." We give each dose of the sodium with 6 or 8 ounces of cold or carbonated water, and have never known it to disagree.

To secure the requisite degree of sedation within a limited time, it is essential that the bromide be given in full doses. Failure from its use, in any neurosis, is often due, we think, to a non-observance of this point. Our initial dose of the sodium is 30 grains, twice daily, at twelve hours' intervals, increasing the amount 20 grains each day,—i.e., 40, 50, 60 grains,—and continuing it, in proper cases, eight days, reaching a maximum dose of 100 grains twice in twenty-four hours. During this time of bromidal medication the usual opiate is gradually lessened, so that from the eighth to the tenth day it is entirely abandoned. A decrease of one-fourth or one-third the usual daily quantity is often made at the outset, experience having proved that *habitués* are almost always using an amount in excess of their actual need, and this reduction causes little or no discomfort. Later, the opiate withdrawal is more or less rapid, according to the increasing sedation, the object being to meet and overcome the rising nervous disturbance by the growing effect of the sedative; in other words, maximum sedation at time of maximum irritation."

"Exceptions to this may occur. Some patients are so weak and anæmic on coming that a previous tonic course is deemed judicious; the usual opiate is continued for a time, and, meanwhile, by full food, tonics, and other measures, effort is made to improve the impaired condition,—and with success, for we have seen patients gain markedly in strength and weight during this roborant régime. Sometimes a patient, before placing himself under our care, has reduced his daily taking to the lowest amount consistent with his comfort. If so, the initial larger reduction is not made, but the decrease is gradual throughout. Again, in some cases

no reduction is made for two or three days, when the bromide effect is secured in part, and the decrease is then begun. And with all patients this rule governs: *Each case is a law unto itself, and the length and amount of the bromide-giving and consequent rate of opiate decrease is determined entirely by individual peculiarity, as shown both before and during treatment.*"

"Having secured the desired sedation and reached the last day of opiate using, it is our practice to give, at or before bed-time of that day, a full dose of morphine. This dose is one-third the former entire daily amount. This secures a sound, all-night sleep, from which the patient wakes much refreshed and often quite surprised at his good condition. On the next night this opiate is repeated, using two-thirds of the previous dose, and again the following night, giving one-third the first night's supply. With each of these opiate doses the maximum bromide dose is given.

Thereafter, what reflex symptoms present are met, mainly, by codeine. The proper use of this drug is a great advance in the treatment of this disease. As a rule, it is not needed before the eleventh day. Exceptionally, a dose or two may be required in the latter part of the ninth or tenth. When its active use is begun, it is given in doses of 1 to 3 grains every 2 to 4 hours, by mouth or subcutaneously, and this continued, gradually decreasing the dose or increasing the interval, till no longer required.

Pure codeine is not suited for subdermic use. It dissolves in acid, and may be given by mouth." When there is painless unrest or much depression of mind or body "hot baths (105 to 112 degrees), ten to twenty minutes, repeated as required, often act like magic; so, too, the Turkish bath. Warm baths are worthless."

Diet is not restricted unless the stomach or bowel condition demands. We have again and again seen patients recover who

did not vomit once, or who had only two or three alvine movements daily. The excessive vomiting mentioned by LEVINSTEIN and OBERSTEINER—abrupt disuse—we have never noted. The former thought the collapse, which we have never seen, in several of his cases was due to vomiting and purging. Most likely the largest factor in causing it was the exhausting mental and physical suffering which his monstrous method entails. If the stomach rebels, entire rest for a time, or milk and lime-water, ale and beef, malted milk, or bovine, in small amount may act well. If not—sinapisms, ether, faradism, or chloroform, alcohol, ice are of value. All failing, a full opiate hypodermatically will promptly suffice.

Twenty-four hours after the opiate-quitting, patients are directed to bed, and kept there two to four days, for we are convinced that rest is an aid of great value. ERLÉNMEYER says: "The best remedy is rest in bed. The importance of quiet, rest in bed, and warmth in promoting restoration during the abstinence struggle cannot be overestimated. I order every patient to bed at the start, and can state with confidence that those who submit to this till I allow a change will get along more easily and satisfactorily during the treatment than others who do not obey, but who insist on moving about or having the run of the premises."

Having thus crossed the opiate Rubicon, treatment pertains mainly to the debility and insomnia. For the former, coca leads the list. Of the fluid extract, give 2 to 4 drachms, or cocaine* 1 to 3 grains, with other tonics, three or four times daily,

*It may be recalled that OBERSTEINER says that cocaine should never be used hypodermically in the treatment of the morphine habit, the formula which he gives should never exceed one-fifth of this.

R. Cocaini muriat.....	0.5
Acid salicylat	0.1
Aq. destillat.....	100.0.
—(Ed.)	

decreasing as need lessens. As a rule, its use is ended in a fortnight. To remove the mental and physical depression, the minor neuralgiæ and the desire for stimulants, sometimes noted, nothing equals it, and full doses of tincture of capsicum often add to its value.

The paper is a very lengthy one—there is much of interest apart for the pharmacopœia of drugs suggested. As significant of Dr. MATTISON's school and the LEVINSTEIN's method which has advocates in the East, he thus strongly expresses himself:—

"As between the method we commend and the LEVINSTEIN's plan, comparison is odious. In this day of advanced therapeutics it is wrong—more, it is *cruel*—to compel these patients to run the gauntlet of such suffering. BARTHOLOW says, "Having had one experience of this kind, I shall not be induced to repeat it; if for no other, for strictly humanitarian reasons, since the mental and physical sufferings are truly horrible."

The claim that this barbarous treatment is the "only safe one" is *false*. More than one death has been charged against it, while the unrecorded life loss none can know. And the number who come perilously near to dying is not small. Of twenty-two cases thus treated by LEVINSTEIN, seven were in imminent danger of death, and only saved by the prompt injection of morphia. OBERSTEINER cites similar cases: tells of violent vomiting, repeated eighty times in twenty-four hours; of "such intense prostration that the patient was thought dead;" and admits it "the cause of very great suffering, or even jeopardizing life."

The claim that this inhuman treatment is the "only one to secure the patient against relapse" is *false*. Most of LEVINSTEIN's and OBERSTEINER's patients had return of their disease, "notwithstanding the unwarrantable tortures to which they were subjected." Dr. JENNINGS truly says: "Dreadful as are the tortures inflicted, they

do not, as a matter of fact, afford any safeguard against relapse."

Men high in the profession may advise such treatment, but we feel bound to say that it is the "cruelty of ignorance" or a heartless disregard of suffering, either of which is without excuse. Modern medicine has much to aid in treating this disease, and the medical man who is not abreast the times along this line had best consign such cases to other care. The ignorance or inhumanity of any physician who would counsel and compel the torture of such practice, save under conditions peculiar and beyond control, merits his being made defendant in a suit for malpractice.

We care not who advocates it, and speak strongly, but advisedly for the reason that our experience proves, beyond question, that the opium slave can be brought out of his bondage without such suffering as this treatment entails.

Marked advance has been made in the treatment of this disease. The method we present is the outcome of more than twenty years' study and experience. It has been proven humane and successful, and it promises, in many cases, a prompt, positive, and permanent cure."

The following remarks in substance were made by Dr. J. M. Fort, an oriental traveler:—By looking at a map of the countries invaded by cholera epidemics it will be seen that Arabia, Persia, Belochistan and India all border on the Arabian Sea and possess a great similarity in climate, topography, character of soil, and it may be reasonably supposed that the water of all this section is strongly impregnated with lime, since the soil of even very many of its valleys is intermixed to a large degree with lime and many of its mountains and hills are composed of limestone. The wilderness of Judea in Palestine consists of lime hills, so thoroughly destitute of verdure that in the distance they appear and glisten in the sun

as though they were covered with snow.

It has been observed that the Moham-medan pilgrims on their return from the great national shrine at Mecca, would die by the hundreds, many of them by the wayside and scatter the germs of this disease far and wide over those oriental countries.

The number of Mobammedans making this pilgrimage, range from 50,000 to 100,000 annually.

The ritual of service enjoined upon them entering the sacred precincts of the temple, embraces among other things drinking water from the Zem Zem or Hager's well.

The English Consul stationed at one time at Jeddo procured several bottles of this water by bribing one of the pilgrims—it being death to any other man than a follower of the Prophet to enter its sacred precincts. This water was forwarded to Professor SIMON; the great London sanitarian, who administered it to various animals, such as rabbits, rats, cats, etc., all of which died, evincing the pathognomic symptoms of Asiatic cholera.—*Dietetic and Hygienic Gazette*.

It is now a settled question that there is no such thing as spontaneous generation, hence it follows that these disease producing germs are created entities and that they have been furnished media and environments, suitable, not only for the maintenance of life, but also for their reproduction and propagation. Lime may be one of the essential ingredients of this media.

BLACK EYE.

There is nothing to compare with a tincture or a strong infusion of capsicum annuum, mixed with an equal bulk of mucilage or gum arabic, and with the addition of a few drops of glycerine. This should be painted all over the bruised surface with a camel's hair pencil, and allowed to dry on, a second or third coating being applied as soon as the first is dry. If done as soon as the injury is inflicted the treatment will invariably prevent the

blackening of the abused tissue. The same remedy has no equal in rheumatic, sore or stiff neck.—*Medical Times*.

THE CHILD'S CRY AS AN AID TO DIAGNOSIS.

The cry of children, according to Dr. HILL (*Denver Medical Times*), in pneumonia and capillary bronchitis, is moderate and peevish and muffled, as if a door were shut between child and hearer. The cry of croup is hoarse, brassy, and metallic, with a crowing inspiration. That of cerebral disease, particularly hydrocephalus, is short, sharp, shrill, and solitary. Marasmus and tubercular peritonitis are manifested by moaning and wailing. Obstinate, passionate, and long-continued crying tells of earache, thirst, hunger, original meanness, or the pricking of a pin. The pleuritic is louder and shriller than the pneumonic, and is evoked by moving the child or on coughing. The cry of intestinal ailments is often accompanied by wriggling and writhing before defecation. Exhaustion is manifested with a whine. Crying only, or just after coughing, indicates pain caused by the act. The return or inspiratory part of the cry grows weaker toward the fatal end of all diseases, and the absence of crying during disease is often of graver import than its presence, showing complete exhaustion and loss of power.

A FEVER ENUNCIATOR.

The Paris correspondent of the *Lancet* describes an electrical system, recently invented, to be used in a hospital ward in much the same way as an automatic fire-alarm system in a mill. Each patient is to have in his axilla an apparatus connected with an electric enunciator, which rings an alarm if the temperature rises above a certain point.

CONSTIPATION IN CHILDREN.

In the *Union Médicale* for May 9th we find the following formula, attributed to

J. SIMON: Two parts each of tincture of cascarrilla, tincture of rhubarb, tincture of cinnamon, tincture of calumba, and tincture of gentian; one part of tincture of nux vomica. From ten to twenty drops are to be given twice a day, according to the age.

Seborrhœal Eczema of the lips and regions about the mouth is treated by DUBREUILH with this ointment:—

Vaseline	40 grammes.
Oxide of zinc	8 "
Washed sulphur	4 "
Salicylic acid	1 gramme.

—*Medical Record*, N. Y.

Coryza is relieved with the following snuff, of which COUPARD says to take a pinch of five or six times a day:—

Cocaine hydroch	0.15 centig.
Menthol	0.25 "
Ac. boric	2.00 gram.
Finely powdered coffee ...	0.50 centig.

—*Ibid*.

THE TREATMENT OF WHOOPING-COUGH.

To diminish the frequency and intensity of the paroxysms, Dr. MARFAN (*Médecine Moderne*, March 11, 1893; *Lyon Médical*, May 14, 1893) recommends a solution of three parts of antipyrine in a hundred of distilled water and twenty-five of syrup of orange flowers. To a child four years old a dessertspoonful of this solution may be given three times a day, with the meals. For the purpose of securing a certain degree of antiseptic action on the air passages he advises fumigation of the room with a mixture of ten parts each of oil of thyme, oil of eucalyptus, and oil of turpentine, two hundred and fifty of rectified spirit, and seven hundred and fifty of water. This, he thinks, tends to prevent secondary infection.

(373) HEALING UNDER A MOIST BLOOD CLOT IN ACCIDENTAL WOUNDS.

JOHNSON, of Baltimore, draws attention, (*Annals of Surgery*, Vol. xvii, No. 3, March 1893) to the great value of the blood clot, as described by SCHEDE, in the cure of

accident cases. Aseptic results after traumatism rightly out-shine similar results after wounds of the surgeon's own making. Indeed, in these last, one has little fear of suppuration; it is only in lacerations and punctures made by other than clean hands and a clean knife that one anticipates infection. JOHNSON gives cases illustrating the safety and simplicity of this method. He usually cleanses the neighbourhood of the wound, which is allowed to fill with blood, and then iodoform and an antiseptic dressing are applied. Any excessive hæmorrhage is controlled by pressure. Instead of directing our attention to perfection in dressing, let us remember that Nature provides us with a beautiful example of conservation in the blood clot. This method, which does not appear to be fully realised by surgeons, may safely be relied on by the country doctor, and is to be commended for its simplicity, and as obviating the *nimia diligentia chirurgiæ*, or meddlesome interference.

THE TREATMENT OF CHOLERA WITH ATROPINE.

At a recent meeting of the Royal Medical and Chirurgical Society of London Dr. LAUDER BRUNTON stated that in 1873 he had called attention to the close resemblance between the symptoms of cholera and those of muscarine poisoning; and, as the latter could be relieved by the subcutaneous injection of atropine, had suggested that good results might be hoped for in cholera from administering atropine. He had not had an opportunity of acting on his theory until last year, when the atropine had proved very useful in treating two cases of cholera. It seems singular that one so well informed as Dr. BRUNTON should apparently be unaware that this suggestion had been made and successfully carried out years before he made it. We need not refer to the facts that VIARDIN in 1832 (*Gazette Médicale de Paris*, 1832, p. 810) and CHALVET in 1859 (*Gazette des Hôpitaux*, 1859, p. 473) success-

fully employed belladonna in the treatment of cholera. But in 1866 the late Dr. JOHN T. HODGEN, of St. Louis, published an article (*St. Louis Medical and Surgical Journal*, 1866, p. 497) advocating the administration of atropine to relieve the collapse of cholera, and for years afterward in his lectures he referred to the usefulness of this drug. In the cholera epidemic of 1873 a number of American physicians employed atropine in treating cholera.

THE TREATMENT OF BURNS.

VON BARDELEBEN states that no specific for the relief of pain of burns has as yet been discovered. The author's present method of treatment is as follows:—

After carefully cleaning the burned area, it is irrigated either with a three per cent. carbolic solution or a thirty per cent. salicylic acid solution. Sublimate lotions are avoided because of the great pain they produce.

After all the blebs are opened the entire surface is covered with powdered bismuth; over this cotton is applied. This absorbs any discharge and fully protects the burned surface from the air. The cotton may be sprinkled with a powder composed of equal parts of bismuth and starch.

The dressing may be allowed to remain from one to three weeks, according to the case. In cases of burns about the face it is only necessary to cover the burned parts with the powder, the bandage being omitted because of the discomfort it occasions.

Under this treatment the author has seen children recover where two-thirds of the body were involved.

VON BARDELEBEN thinks that bismuth probably exerts some influence in preventing intestinal complications, as in one hundred cases treated in this manner only two had blood in their stools. In using the bismuth there is no danger of intoxication from absorption, even in cases where it is extensively applied. By the antiseptic treatment

secretion is greatly diminished.—*Albany Med. Annals.*

CIRCUMCISION IN INFANTS.

TARNIER (*Journ. des Sages Femmes*, March 16th, 1893) cautions surgeons against using carbolic lotions for dressing the glans after circumcision. Infants bear carbolic acid badly. LUCAS-CHAMPIONNIERE has known death to follow the application of carbolic compresses to the nates of a child, where there was no wound or soreness of the skin. On the other hand, infants bear mercury well. Hence a weak VAN SWIETEN's fluid (sublimite, 20 centigrammes with 3 grammes of alcohol to the litre of water) makes an excellent dressing after circumcision.

EXTERNAL HEMORRHOIDS.

Anæsthetize the skin and mucous membrane with cocaine, applied on cotton. Pass a finger into the rectum, and inject six times half a syringeful of cocaine solution, 2 per cent., between the mucosa and the cellular tissue around the rectum, avoiding the veins. When complete anesthesia has been produced, introduce a speculum and dilate the sphincter.—*Reclus.*

With regard to high temperature we extract the following from *The Medical World* of Philadelphia:—

At a meeting of the French Association for the Advancement of Science, held September, 1891, M. MAURIEL, of Toulouse, read a paper in which he voiced the general belief regarding the effects of high temperatures, so-called. He stated that an animal cannot survive its leucocytes. That a temperature of $111\frac{1}{2}^{\circ}$ to 113° F. destroys our leucocytes in a few minutes; that in a temperature of $109\frac{3}{4}^{\circ}$ to $111\frac{1}{2}^{\circ}$ F., they do not live an hour, and in a temperature of $107\frac{3}{4}^{\circ}$ to $109\frac{3}{4}^{\circ}$ F., they may live for three hours, retaining their activity, but gradually lose it, and finally die. He further states that a patient never survives a temperature

of $107\frac{3}{4}^{\circ}$ F. This has been the opinion held by the profession generally.

A compilation of cases of recovery from hyperpyrexia appears in the *Journal of the American Medical Association*, tabulated by EDWARD F. WELLS, M.D., of Chicago. We there find twenty-two cases recovering from a temperature of 107° ; twelve ranging from 109.2° to 107.8° ; twelve from 108 ; ten from 108.1° to 108.8° ; seven from 109° ; seven from 109.2° to 109.8° ; four with 110° ; one, 110.5° ; seven, 111° ; one, 111.6° ; three, 112° ; one, 112.8° ; three, 113° ; one, 113.8° ; two, 115° ; three, 116° ; one, 117° ; one, 120.8° ; one, 125° ; one, 125.5° ; one, 128° , and one 133.6° .

Still more remarkable comes the report of Dr. HELER JONES, in the *Memphis Medical Journal*, regarding a case of recovery, where the temperature ran at times up to 157° F., resulting in bursting the thermometer. This is vouched for by some twelve physicians who were present. The doctor naively asks, "Is it really the high temperature that proves fatal, or is the heart but a secondary factor?" We have given the matter much consideration and are distinctly of opinion that the bursting of the thermometer was the cause of death on this occasion.—[ED.]

ANTIDOTES FOR POISONS.

In cases where the other articles to be used as antidotes are not in the house, give two tablespoonfuls ground mustard in a pint of warm water. Also give large draughts of warm milk or water mixed with oil, butter, or lard. If possible, give as follows:—

Poison.	Antidote.
For Bed-bug poison, Corrosive sublimate, Blue vitriol, Lead water, Saltpetre, Sugar of lead, Sulphate of zinc, Red precipitate, Vermilion,	Give milk or white of eggs, large quantities.

For Fowler's solution, White precipitate, Arsenic,	{ Give prompt emetic of mustard and salt, table-spoonful of each; follow with sweet oil, butter, or milk.
For Antimonial wine, Tartar emetic,	{ Drink warm water to encourage vomiting. If vomiting does not stop, give a grain of opium in water.
For Oil of vitriol, Aqua fortis, Bicarbonate potassa, Muriatic acid, Oxalic acid,	{ Magnesia or soap dissolved in water, every two minutes.
For Caustic soda, Caustic potash, Volatile alkali,	{ Drink freely of water with vinegar or lemon-juice in it.
For Carbolic acid,	{ Give flour and water or glutinous drinks.
For Chloral hydrate, Chloroform,	{ Pour cold water over the head and face, with artificial respiration, galvanic battery.
For Carbonate of soda, Copperas, Cobalt,	{ Prompt emetics; soap or mucilaginous drinks.
For Laudanum, Morphine, Opium,	{ Strong coffee, followed by ground mustard or grease in warm water to produce vomiting. Keep in motion.
For Nitrate of silver,	{ Give common salt in water.
For Strychnine, Tinct. nux vomica,	{ Emetic of mustard or sulphate of zinc, aided by warm water.

—*Medical Brief.*

THE HYGIENE OF THE TEETH.

All caries of the teeth begins from the outside, no such thing as internal caries having ever been demonstrated; hence if the surfaces could be kept absolutely clean, no decay could take place, however poor the texture of the teeth. This is of course impossible, but much in this direction can be attained by attention to hygienic rules. Parents often ask their dentists and

medical attendants: "When ought teeth to be cleaned?" The answer assuredly is: "As soon as there are teeth." A very small tooth-brush charged with some precipitated chalk flavored with an aromatic drug to make it pleasant, is perhaps the best means.—*The Lancet.*

OFFICIAL OR OFFICIALINAL.

Dr. A. H. DOBSON defines the distinction between these two terms, in a communication to *The Lancet*, as follows: The terms "official" and "officialinal" are so frequently used as synonymous by authors of works on materia medica and kindred subjects that it may be well to point out that there is a wide difference between the words. "Official" (*officium*, an office) means issued or sanctioned by authority; "officialinal" (*officina*, a shop) means kept in a shop. Blue pill is official; liver pills are officialinal.

TESTS OF DEATH.

With regard to the above and the "diaphanous test" Dr. EDWIN HOWARD and Sir BENJAMIN RICHARDSON have compiled the following list. It is certainly instructive and may at any time be useful to a medical man:—

- (1) Heart sounds and motion entirely absent, together with all pulse movement.
- (2) Respiratory sounds and movements entirely absent.
- (3) Temperature of the body taken from the mouth the same as that of the surrounding air in the room, 62° F.
- (4) A bright needle plunged into the body of the biceps muscle (CLOQUET'S needle test) and left there shows on withdrawal no sign of oxidation.
- (5) Intermittent shocks of electricity at different tensions passed by needles into various muscles and groups of muscle give no indication whatever of irritability.
- (6) The fillet-test applied to the veins of the arm (RICHARDSON'S test) causes no filling of veins on the distal side of the fillet.
- (7) The opening of a vein to ascertain whether the blood has undergone

coagulation shows that the blood was still fluid. (8) The subcutaneous injection of ammonia (MONTE VERDI's test) causes the dirty brown stain indicative of dissolution. (9) On making careful movements of the joints of the extremities, of the lower jaw and of the occipito-frontalis rigor mortis is found in several parts.

Thus of these nine tests eight distinctly declared that death was absolute; the exception, the fluidity of the blood, being a phenomenon quite compatible with blood preter-naturally fluid and at a low temperature, even though death had occurred.

There now remained the diaphanous test (10), which was carried out by the aid of a powerful reflector lamp, the scarlet line of light between the fingers was as distinct as it was in living hands subjected to the same experiment.

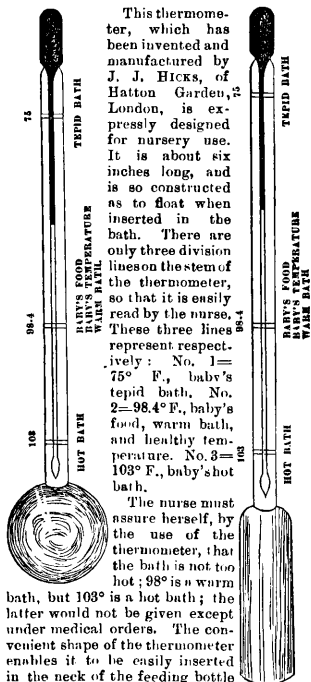
SALOL IN CHOLERA.

GIRODE (*Sem. Med.*,) raises the question of the propriety of given Salol in a disease in which the mechanism of digestion is so disordered as it is in Cholera. The following extract is taken from the *British Medical Journal*:—"On post-mortem examination (less than three hours after death) two lumps were felt at the most dependent part of the stomach about the middle of the greater curvature. On opening the viscera the lumps were found to be caused by masses of salol. The fragments of the substance were agglutinated together and heaped into a flattened concavo-convex mass; each of the lumps lay in a small pouch accurately moulded to it. At the corresponding points the stomach wall was thinned and congested. On microscopic examination the mucous membrane in the pouches in which the masses of salol had lain showed epithelial necrosis, which contrasted markedly with the relatively healthy condition of the other parts of the viscus."

We are well aware that Salol is strongly advocated by many here in the East, and that the warning here given does not neces-

sarily condemn it—still it would be well to use it with the greatest caution in ulcerous conditions of the digestive tract. In the case given above not only was the Salol useless but it might have caused grave lesions.

BABY'S FOOD, BATH AND CLINICAL THERMOMETER.



This thermometer, which has been invented and manufactured by J. J. HICKS, of Hatton Garden,² London, is expressly designed for nursery use. It is about six inches long, and is so constructed as to float when inserted in the bath. There are only three division lines on the stem of the thermometer, so that it is easily read by the nurse. These three lines represent respectively: No. 1 = 75° F., baby's tepid bath. No. 2 = 98.4° F., baby's food, warm bath, and healthy temperature. No. 3 = 103° F., baby's hot bath.

The nurse must assure herself, by the use of the thermometer, that the bath is not too hot; 98° is a warm bath, but 103° is a hot bath; the latter would not be given except under medical orders. The convenient shape of the thermometer enables it to be easily inserted in the neck of the feeding bottle or other vessel containing food. For clinical purposes the thermometer is equally appropriate, as the bulb can be inserted in the child's mouth, or, if preferred, under its arm. The thermometer is entirely of English make and design. It is strong and its accuracy guaranteed. Each instrument is supplied in a compact and handsome velvet lined leather case, in which it should always be kept when not in use. This thermometer is of great utility and simplicity.—*British Medical Journal*.

NOTES AND ITEMS.

We take the following extracts from the *Hongkong Daily Press* of the 5th September with regard to the opening ceremony of the Nethersole Hospital which is to serve as an adjunct to the well-known Alice Memorial Hospital. We quote:—When Sir WILLIAM and Lady ROBINSON entered the airy ward in which the speeches were made there was a very representative gathering. The proceedings passed off most successfully and pleasantly. Much admiration was expressed at the size and arrangement of the building, the comforts and conveniences provided, and the general scheme of construction. The roomy entrance and the main staircase were decorated with a profusion of pot plants, and on the left a small apartment had been converted into a refreshment room, in which at the conclusion of the function the visitors were invited to take tea.

Then Dr. CHALMERS proceeded to describe in an eloquent speech the noble benefactions of which the Hospital had been the recipient—in all totalling \$100,000. "And this is not all. What a noble work those men of the medical staff are doing gratuitously! CROAKERS say it is all for the sake of the practice—to keep their hand in. I wish they would try to keep their hand in some way of well-doing, and put a bridle on their tongue. It is good to be always doing the work of our Divine Master—that is the ideal—but it is better to be doing His work sometimes and in some directions than not to be doing it at all—not even where the stimulus of self-interest might come in to aid self-sacrifice. Some people are so afraid of getting the gold medal that they would not rescue a drowning man. It is only necessary to read the annual reports or to look at the Alice Memorial Hospital any day when the work of healing is going on

to get a conception of the vast amount of good that is done; apart, if you like, from the religious teaching, the best of which is truly an application of the object lessons of the consulting room, and the dispensary, the operation room and the wards. Taking the annual expenditure as shewn in the reports and comparing it with the total number of cases, of suffering relieved, disease cured or life saved, it will be seen that the cost is on an average about a dollar a head. Why, you could hardly get a dose of medicine at the Dispensary for less. Our bright hope, then, is that in the good times coming the two hospitals will be even better supported than the one has been, and that God will continue to bless the whole colony more and more in all good things. The London Missionary Society and the medical staff are pledged to carry on the work in this place on the same lines as in the Alice Memorial Hospital. The Finance Committee have approved of the extension. And now and henceforth by common consent the "Alice" and "Nethersole" are to be combined in one."

His Excellency Sir WILLIAM ROBINSON in announcing the opening of the Hospital for the reception of patients regretted the absence of Dr. Ho KAI the founder of that noble institution the Alice Memorial Hospital, and referred to the absolute certainty of the greatest possible benefit that would be conferred on the many thousands of sad and suffering poor who inhabit the thickly populated town—he then spoke of the fact that owing to the poverty of the colony there had been a considerable falling off in foreign contributions. "But there is a bright side to this picture, for you will perceive that the Chinese have risen to the occasion—all honour to them for their liberality."

"Dr. J. CANTLIE then proposed a hearty vote of thanks to Sir WILLIAM and Lady ROBINSON for their presence, and in the course of his remarks paid an eloquent tribute to the energy and ability of Dr. J. C. THOMSON, who, he said, was more than any other man directly responsible for the new Hospital which had just been opened. He suggested that if they could not place a bust of Dr. THOMSON in the entrance hall they ought to erect a little slab recording the active part he had taken in establishing the new institution."

These remarks having been met with very hearty applause, concluded the proceedings.

We beg to acknowledge the receipt of a communication from the College of Physicians of Philadelphia with regard to the WILLIAM F. JENKS Memorial Prize—the title of the Essay, which by the way has to be in by the 1st Jan. 1894, is 'Infant Mortality during Labor, and its Prevention.' We will forward any further explanations if required.

Dr. H. T. WHITNEY writing from Oberlin tells us that he hopes to return to China in the autumn—many will warmly welcome him. He has kindly forwarded us the following series of Resolutions which were adopted at the Meeting of the International Missionary Union:—

On Chinese Exclusion.

Whereas, The United States for over fifty years has maintained treaty-relations with China, guaranteeing protection to American citizens in China, establishing full toleration from the Chinese Government for the Christian Religion, and regulating American commercial relations with the people of that country,

And *Whereas*, Both the SCOTT Bill of 1888 and the GEARY Bill of 1892 have glaringly violated the different treaties of 1842, 1860, 1868, and 1880, first by forbidding Chinese laborers visiting their native land to return to this, contrary to the express stipulations

of the treaty of 1880, and secondly by enacting a variety of restrictions and penalties for the Chinese already residing within the territory of the United States, contrary to the treaty of 1880, which expressly states that all Chinese in the United States shall be subject to the same favours, privileges, exemptions and immunities accorded to the most favoured nation.

Therefore *Resolved*, 1. That this Union desires to place on record its strong protestation to the policy of breaking a national contract, and also to the unjust and unfriendly features in the laws now in force regarding Chinese immigration, and especially concerning those Chinese who are already residents in the United States.

Resolved, 2. That this Union would most respectfully petition the Executive and Legislature of the nation to repeal the the present law, and enact such a new law as will either harmonize with the treaties made in the past with China, or, if desirable, with a new treaty agreed upon and duly ratified by both Governments,

And *Resolved*, 3. That a Standing Committee of two be appointed to represent this Union in endeavoring to secure in every possible way such legislative action as will be alike creditable to the Christian character of our nation, respectful to China, and beneficial to all American interests in that land.

We note that during the session Drs. WHITNEY and MERRITT spoke on medical missions "and all listened as they spoke with enthusiasm of their experiences of medical work among the Chinese."

Dr. BROWN-SEQUARD has made 20,000 injections with his sperm fluid during the last three years, and he claims that the result has been invariably successful. He considers the system unapproachable for the treatment of weakness and debility.—*N. Y. Medical Times*.

With regard to Jewish wit and humour the following is an example of repartee. At a festive banquet, representatives of the Protestant, Catholic and Jewish clergy had been invited, and were engaged in pleasant converse. The Rabbi faithful to the dietary precepts of his religion, partook of only a few of the dishes. An appetising joint of roast pork was set on the table. The Catholic priest turned to his neighbour and asked, "When will the time come that I may have the privilege of serving you with a slice of this delicious meat?"

"When I have the gratification of assisting at your Reverence's wedding," the Rabbi instantly rejoined, with a courteous bow.

'Our own correspondent' to the *N.-C. Daily News* writes:—

DR. MACKENZIE'S Memorial, as it ought to be called, is now rapidly approaching completion. As you know, the distinguished surgeon had the complete confidence of the Viceroy, who yearly entrusted him with a large sum for medical purposes; with His Excellency's knowledge and approval the doctor set about forming the nucleus of a building fund. At his death this amounted to two or three thousand taels, and the inheritance of it became the source of a more or less amicable discussion between the Chinese and the London Mission. Very sensibly it was referred to arbitration with the result that the Chinese got most, if not all, of the fund. The present building, a large two-storied edifice near the Taku Road, is the result; it adjoins the Hospital and is meant to be a well equipped Medical School for Chinese Students. Dr. IRWIN will be the responsible chief of the establishment; we understand that Sir ANDREW CLARKE has nominated a physician to come out and act as the presiding *genius loci*. The financial standing of the school is not yet so assured as to enable them to specialize, so that this gentleman will have to be as multiple an official as Pooh-bah himself. He will have

to teach all or most of anatomy, physiology, chemistry, materia medica, medicine, surgery, obstetrics, pathology, histology, forensic medicine, and the Lord knows what else.

—
Apropos of the broad-minded Bedford clergyman who reads the religious weeklies and has come to the conclusion that "the Bible is the only publication that he can peruse without risk of being tricked into reading some patent medicine advertisement" it is with a feeling, we regret to say almost akin to relief that we understand H. H. WARNER of 'Safe Cure' notoriety has made an assignment.

A NEW TEST-TUBE.

The illustration which we give here exhibits a new form of test-tube which has been designed by Mr. HOARE, a student in Guy's Hospital. The bulb is an effective means of preventing boiling over in many chemical operations, and when the lower



part of the tube is only partly filled the tube can be placed on a bench without spilling the contents. In use we expect that the tube will develop other advantages according to the notions of each operator, but meanwhile it is likely to be a tube which medical men will take to.—*Chemist and Druggist*, Feb. 25, 1893.

SIMPLE STEAM BATH.

In an Edinburgh professional journal a simple and ingenious contrivance is mentioned to admit of the continuous inhalation of steam fumes by patients suffering from diphtheria. This is nothing more than the fixing of an open umbrella to the bed, or suspending it from the ceiling, and throwing over this a large sheet, which, falling in a tent about the patient, will surround him with the atmosphere of steam. The steam is supplied by a pipe connection with

a kettle or other boiling contrivance that passes beneath the tent. The suggestion is so admirable and feasible, that we are sure it will be welcomed by many physicians who are sometimes at a loss, in the absence of especially devised contrivances, to know how to effect with simple means the end desired in such cases.

GERMANY VERY BACKWARD.

The largely signed petition, praying "That the study of medicine at German universities be thrown open to women, and that women duly qualified be allowed to practise the medical profession," was contemptuously dismissed in the German Reichstag. That the petition would be rejected was a foregone conclusion. But it might have been expected that the question—which is everywhere acknowledged to be a burning one—would have been seriously discussed. It seems, however, that this was thought quite unnecessary by the opponents. The arguments against the petition were of the familiar, well-worn description, more suitable to a provincial debating club than to the Parliament of the German Empire. "Women should keep house, and not meddle with science. Women who study are objectionable." This was the gist of the opponents' speeches; the discussion did not rise above this level, and the petition was quietly thrown out.

SELF-SUPPORTING HOSPITALS.

Dr. WENYON, of China, states that at the Missionary Hospital at Fatshan, South China, between 2,000 and 3,000 patients have been under medical treatment during the past year. At Shiu-kwan, Dr. MACDONALD has had some 2,000 under his medical care. Both hospitals are self-supporting, the fees at the former amounting to \$2,500. The other Wesleyan Medical Missions are at Hankow, Wuchang and Teh-ngan.

PANG-CHUANG.

Sept., 1893.

DEAR DR. MATHEWS.

Perhaps the funny man on your staff will appreciate the following squib. One of our good neighbors Dr. ———, could not find what Lucca oil was. He wrote us that he had diligently compared all the big books to the number of ten and could find no reference whatever to the drug. However he did surmise that it must be Ol Olivae. I sent him an advertisement from *Harper's Weekly* with the following :—

Sigma

Ctel R. Oleum Luccae.

There once was a man in Cathay
Who had lost his medical way,
In ten books quite profound,
He almost was drowned,
This studious man of Cathay.

How sad, cried he, is my luck, ah;
Will nobody come to my succor?
While I sweat in my toil,
In search for the oil,
The far famed strange oil called o'Lucca.

But his woes at last found an end
For he sent in despair to a friend,
Who wrote him a chit,
With wisdom all writ,
In a style that would make you unbend.

Lay aside your fear and dismay,
Renew your bright spirits, I pray;
The oil which you seek
Was anciently Greek,
But we buy it from fair Italia.*

Its odor is sweet to the smell,
When old it is as rancid as "Fel"
In a clean carbolate
Which the microbes disrate
It will solace your wounds very well.

After such an effort you will scarcely expect much medical news.

I am,

Yours with regard,

HENRY D. PORTER.†

* Pron. Italyā.

† We forbear comment; we asked an article from one, heretofore our friend, we are completely broken up.—(Ed.)

A few genial lines from Dr. GREIG have just reached us from Kirin. He does not think that "medical missions are yet taking their proper place in either the Churches or the medical profession, but such Journals as ours cannot fail to help the cause very materially." So many of us have sympathized with Dr. GREIG in the past that it is with much pleasure we now hear of his welfare, and earnestly wish him God speed in the future (the notes accompanying the letter we must for the nonce hold over). Then, Dr. NEAL writing from home gives us the welcome news of his return. "I have much enjoyed being in America but am keen to get back to work."

Another letter dated September 19th. 'On board the *Tungchow*,' regrets our not meeting in Shanghai. He tells us, "We take with us to Chinan-fu, Dr. SARAH A. POIN-DEXTER who will be my colleague in medical work there and will have charge of the Woman's Hospital which we hope to build in the spring." Our hearty welcome to Dr. POINDEXTER. September 20th from Tientsin brings us one of Dr. ROBERT's many little pleasant 'chits.' We quote: It is reported that Mr. CHOU your assistant is coming north to the Viceroy's hospital to take Dr. MAR's place who goes south for the winter invalided. I shall be glad to meet him and hope he will look me up. A lecturer from St. John's College, Loudon (name unknown) is coming out to start the medical school under the Viceroy.

The Mr. CHOU referred to studied medicine in the States and was for some years one of the teachers in St. John's College, Shanghai. We congratulate Mr. CHOU upon his appointment, and the authorities of the institution to which he has been appointed.

From Amoy date of August 14th we are so pleased to hear better news of Mrs. FAHMY. The doctor tells us "that the inland folk

come down here for a month's rest and re-invigoration.

For the last three years advantage has been taken of such a gathering of missionaries, both medical and clerical, by holding a series of conferences for mutual help and edification. This time there will be three such meetings; and the subject for the first is, "The Kind of Workman we should be."

"It may, perhaps, interest you to know that, after many disappointments, we have at last succeeded in securing a site for a new and much needed decent hospital in Chiaug-chiu; and we hope to begin building in October. I shall not feel quite comfortable, however, until the foundation stone is laid down, or indeed the roof on; for in China site and building disappointments are of almost universal experience."

Dr. COLTMAN writes us from the Capital, July 25th, as cheerily as of yore. With work that is congenial and with colleagues who are *colleagues* in every sense of the word—we congratulate him right heartily—the only regret and one in which many will share, is, that "Pritchard has to retire." It is with surprise we note that some of our *special* correspondents are alluded to as if in perfect health, when we ourselves have known how thoroughly incapacitated they have been for a long time past.

ICHANG.

All is quiet at Ichang and foreign buildings growing apace. The Catholic monastery is finished; and godowns, offices, and quarters are being erected for the Customs' staff. One figure is missing; that of the late Dr. PIRIE, of the Scotch Mission, who was doing such good work here among the Chinese. His genial kindness and frank open manner and good nature made him beloved alike by all the Chinese and foreigners that were brought into contact with him; and if ever there was a man

fitted for the double duty of administering physic to body and soul, surely this was he. His death cast a gloom over the whole place. It is with much regret we note the foregoing in the *North-China Daily News*. It was but so little while since Dr. PIRIE was chatting to us of all his hopes and aims, of his then looked for happiness in meeting a bride who was to be so associated with him in his work. We heartily sympathize with her in her great and sudden bereavement.

The Anti-vaccinator is again to the fore in England and somewhat more persistently than usual. As an humbly biassed individual we hold that vaccination is a method of preserving and defending a body which the Almighty has given to our keeping to put into action, and there our belief ends. The following extract which we take from a home paper is relevant as affording striking testimony to the efficacy of vaccination. Dr. MARSON who was at the head of the London Small-pox Hospital for fifty-one years, states that no nurse or attendant was ever attacked! "Every one was vaccinated, or re-vaccinated before he entered on his labors; and we may be quite sure that the work was thoroughly done before passing muster under the eye of this expert. As an encouragement to the doubting, we reproduce a table published some years ago based upon an examination of 5,000 cases, giving the results of Dr. MARSON'S observations extending over twenty years."

Classification of Patients affected with Small-pox

	No. of deaths per cent. in each class respectively.
1. Unvaccinated	35
2. Stated to have been vaccinated, but having no cicatrix	23.57
3. Vaccinated —	
(a) Having one vaccine cicatrix	7.73
(b) Having two vaccine cicatrices	4.70
(c) Having three vaccine cicatrices ..	1.95

(d) Having four or more vaccine cicatrices	0.55
(aa) Having well marked cicatrices	2.52
(bb) Having badly marked cicatrices	8.82
4. Having previously had small-pox	19

This table was made for the years between 1835 and 1855, but later experience only confirms the above; for an analysis of 11,724 cases treated in the hospitals of the Asylum Boards between 1870 and 1880 shows that the mortality among those who had "good marks" was 4.1 per cent.; in those who had "indifferent marks" it was 11 per cent. If it is asked, What are "good" marks? the reply is that in England the standard is "four characteristic cicatrices."

The St. John's Echo. September, 1893. Price one dollar. The Presbyterian Mission Press, Shanghai.

The editorial of this pleasant little College paper first making grateful and appreciative mention of its late management then proceeds to map out the aims and objects of the future. We quote: It shall be our earnest endeavour to go on developing the work of St. John's until it becomes a *College* in the true sense of the word. Over the portals of the library of one of the oldest universities in America one can decipher the Hebrew words "urim and thummim," light and truth. Surely no nobler motto could be found for a seat of learning, and we can have no loftier aim than to make St. John's College a beacon of light and truth in China.

We shall endeavour to give our students a broad, liberal and Christian education. We shall go on teaching the English language and literature as thoroughly as we can, and we believe that it will conduce to the broadening of the mental horizon of our students. We shall teach the sciences, not only because they have a utilitarian value but because the truths of science come as all truth does from God, and the

studying of these truths must aid in the advancement of mankind.

Our education shall be a Christian one; our students shall be taught that the formation of character is more important even than the development of mind, and that the religion of Christ has produced the highest form of character the world has yet seen.

We shall try to make others as enthusiastic as we are ourselves and shall contend for the position that educational work must lie at the foundation of the missionary effort in China if it is to be successful. The impetus to the renaissance in Europe came largely from the schools, and we are firmly convinced that in China such will be the case also. The *St. John's Echo* will play an important part in all we are striving after, for it will serve more and more as the chronicle of the life and growth of St. John's College, and will help to keep up the interest of those whom we believe to be our sincere well wishers.

We hope before many months to see a new college rising on the site of the present building in every way better fitted for the work it has to accomplish. Money enough has been secured to put up a strong and substantial edifice, architecturally pleasing to the eye.

'The Notes of the Seasons and College Items' which follow on is as interesting and quaint as usual—yet another old college lad, CHAR NEW-CHING has obtained the first degree (siu-tsai) at the recent examination at Zak-mung. FOH KUNG-ZAU expatiates on the Postal System of China and hopes the time will soon come "when our government will establish a postal system of its own"—a wish we cordially endorse seeing to all the postal vagaries to the fore now in China. ZUNG Tsz-woo continuing 'Complaints and Suggestions' naively remarks in connection with some admitted abuses in which the Sikh police are occasionally involved, "It would be a great happiness if such things should never happen." 'Chinese Fishery' by TSAU TSUNG-

KIUNG is as well written and expressed as the foregoing and gives us some interesting information regarding the apparent domesticating and rearing of fish. 'Chinese Food' is an anonymous production of evidently a more junior correspondent. We are informed that "among the fleshs the pork is the most common one." KIA YU-TSE gives some 'Notes on Kaiding' describing that city in a more complimentary strain than we fear we should, had we to write thereon. TSING KONG-woo's 'Romantic Dream' is the last composition in this little paper which is distinctly improving. We have every sympathy with the views expressed in the editorial programme, and we wish them and their exponents an ever-abiding success.

It is with peculiar pleasure that mention is made of the conferring of the degree of LL.D. upon our veteran medical missionary, Dr. JOHN G. KERR, of Canton, China. No degree was ever more worthily bestowed, or, we have reason to know, more unexpectedly received, than in the present case. It is well that Wooster, the leading Presbyterian University of Ohio, should thus honor one whom God has highly honored, by an unusually long life of great usefulness, and whom the people of China, and those in China both delight to honor.

As it has been well earned, may it be well worn, ere it is laid aside to give place to that highest honor, the "*Well Done*," of the Great Physician Himself.

"AN EXTRAORDINARY TURNING."

Dr. MACKAY writes from Formosa, an island on the coast of China, that there has been an extraordinary turning from idols on the part of the people of Kelevan. Nearly five hundred idolaters cleared their houses of idols in his presence, and gave him a temple, built for idols, as a place of worship.—*Christian Herald*.

THE FIRST LEPROSY HOSPITAL AT HANG-CHOW

This hospital is in charge of Dr. DUNCAN MAIN, Medical Missionary of the C. M. S., and he it was who planned the building and superintended its erection. Bishop MOULE speaks of it as "a detached and airy building of one story, facing South, and consisting of six wards, each containing two beds; a chapel, dining-room, kitchen and other offices, all looking into a walled courtyard 70 feet by 20 feet." The present building is intended for men only, but already Dr. and Mrs. MAIN have found the need for a similar building for women and they have written to us begging of us to buy a small house at a cost of £50, which can be turned into a suitable place for women. We have sent out the £50, and it will probably take another £50 to put it into proper order.—*Medical Missionary Record*.

A farewell service was recently held in Sherbourne Street Methodist Church, Toronto, in connection with the departure of O. R. AVISON, M.D., as a medical missionary for Korea. Dr. AVISON is an official member in the Sherbourne Street Church, being a local preacher and an active worker in the congregation.

We beg to acknowledge with thanks the receipt of the following:—

Letters with enclosures from Dr. MILLES of Shanghai, Dr. GREIG of Kirin and Dr. PARRY of Chentu. 'Deformities of the Nasal Septum and their influences in diseases of the ear and throat,' by WM. SCHEPPEGREGG, A.M., M.D., being a reprint from the New Orleans Medical and Surgical Journal. The Annual Report of the British and Foreign Bible Society for the year ending December 1892. The Report of the Fourth Annual Meeting of the Christian Vernacular Society of Shanghai. The First Annual Report (in English and Chinese) of the Chuuking Hospital of the Methodist Episcopal Church for 1892. The Use of T'ien Chu for God in Chinese, by H.

BLODGET, D.D., Missionary of the American Board, Peking. Shanghai: American Presbyterian Press.

ARRIVALS.

At Shanghai, June 27th, the Rev. H. CLINTON COLLINS, M.D., of the American Protestant Episcopal Church, for Hankow.
At Shanghai, September 16th, Dr. H. M. HARE, of Canadian Methodist Mission, for Chentu, Sz-chuan.
At Shanghai, September 16th, Dr. ANNIE WALTER and Dr. SARAH POINDEXTER, both of Northern Presbyterian Mission. Also Dr. J. B. NEAL, of the same mission, returning to Chinan-fu.
At Shanghai, September 16th, Dr. E. HART, of the Southern Methodist Mission, for Soochow.
At Shanghai, September 18th, Dr. LUCY GARNER, of Women's Union Mission, U. S. A., for Shanghai.
At Shanghai, September 26th, Dr. W. H. VENABLE, of the Southern Presbyterian Mission, for Sin-dzang.

BIRTHS.

At Wei-hien, on August 14th, the wife of Dr. W. R. FARIES, of a son.
At Shanghai, September 13th, the wife of Dr. E. WOODS, of a daughter.

MARRIAGES.

THURSDAY, July 20th, at Barton, Ontario, Canada, EGERTON H. HART, M.D., I. M. M. S., to Miss ROSE MUNN.
At Shanghai, August 5th, 1893, by Rev. P. F. PRICE, Rev. B. C. PATTERSON, to Miss ANNIE R. HOUSTON, M.D., both of the Southern Presbyterian Mission.
At Shanghai, September 27th, 1893, by Rev. H. C. DuBOISE, D.D., W. H. VENABLE, M.D., to Miss E. K. TALBOT, both of the Southern Presbyterian Mission.

DEATH.

At Pakhoi, on June 18th, of dysentery, CHARLES STEWART BEAUCHAMP, the beloved only child of Dr. E. G. HORDER, C. M. S., Pakhoi.

The China Medical Missionary Journal.

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Original Communications.

[No paper published or to be published in any other medical journal will be accepted for this department. All papers must be in the hands of the Editor on the first day of the month preceding that in which they are expected to appear. A complimentary edition of a dozen reprints of his article will be furnished each contributor should he so desire. Any number of reprints may be had at reasonable rates if a *written* order for the same accompany the paper.]

TWO CASES OF ABDOMINAL SURGERY.

Cancer of the Rectum. Iliac Colotomy.

By W. J. MILLES, M.D., F.R.C.S., *Shanghai.*

A woman aged 50 was admitted into the Chinese Hospital, Shantung Road, on 8th April, 1893, with a history of having suffered for the last two years from constipation, with increasing difficulty and pain in defæcation. She was thin, and had a pale pasty complexion. The motions were passed with great straining, and were scanty and covered with blood and pus; the abdomen was swollen and tympanitic. The rectal mucous membrane was everted and deeply congested; on introducing the finger, a firm nodular mass was felt about an inch and a half from the anus, and there was a rectal stricture that would only admit a medium sized catheter. This was slowly dilated, and at the end of a few days the fore-finger could be passed, but the upper limit of the tumour could be felt neither by the rectum nor the vagina. The tumour was probably a columnar celled epithelioma; it had not the hard feeling of a scirrhus cancer. As its upper limit was not accessible, the question of excision of the rectum was excluded. Colotomy was the only alternative, and iliac colotomy was decided upon, as its superiority to lumbar colotomy seemed to be evident through recently improved methods of operation.

I followed the details described by Mr. Harrison Cripps, taking an imaginary line from the anterior superior spine of the ilium to the umbilicus: the incision, which is two and a half inches long, crosses this line at right angles, half above and half below, being an inch and a half from the superior spine. The colon appeared directly the peritoneum was divided, and was drawn into the wound. Mr. Cripps says:—“In order to avoid the prolapse which is likely to occur if loose folds of the sigmoid flexure remain

immediately above the opening, I gently draw out as much loose bowel as will readily come, passing it in at the lower angle, as it is drawn out from above. In this way after passing through one's fingers an amount varying from one to several inches, no more will come." This manipulation was carried out, but when three or four inches had been drawn out, the bowel was found to turn downwards towards the pelvis, so that the part which apparently led upwards to the descending colon, was really connected with the rectum, owing to a half turn made by a coil of the gut. I had therefore to retrace and attach the other end to the abdominal opening. This complication is of small importance in an ordinary inguinal colotomy, but would probably prove fatal if it passed undetected in a modification of the operation, where it is advised to divide the bowel completely, stitch up the lower end, and return it to the belly. The parietal peritoneum was now attached to the skin, and the colon fixed in position by a number of fine stitches, passed through the lower longitudinal band on one side, and close to the mesenteric border on the other; two-thirds of the circumference of the gut were thus included between the sutures. Through the abdominal incision a part of the tumour could be felt, reaching along the bowel nearly to the upper level of the pelvis. The wound was covered with protective, and an antiseptic dressing firmly applied.

Five days after the operation the bowel was opened and the part between the sutures was cut away with scissors. It had undergone considerable œdematous thickening. Three days later there was a passage of fæces through the artificial anus; from that time none passed by the rectum, the removal of two-thirds of the circumference of the gut forming an effective spur.

The woman made an uninterrupted recovery, and left the Hospital in a fortnight, with a firm pad over the opening. Some weeks after I was informed by her friends that a large part of the bowel was projecting from the wound; she was brought to the hospital again, but there was no vestige of prolapse, in spite of the fact that all bandages and pads had been discarded. Her health had greatly improved. She had a regular action of the bowels every day through the artificial anus, and she was free from all pain.

Six perforating wounds of the small intestine, with recovery.

A lad aged 17 was brought to the Hospital at 8 p.m. on the 30th March. There had been a quarrel with some other boys, while they were kite-flying. He had been stabbed in the belly between four and five o'clock. He was taken to the Sinza village near Shanghai, and later on to the police station; from thence he was at once carried to the Hospital. The knife with which he had been stabbed was dagger-shaped, with a blade fully five inches long.

There was a perforating wound of the belly extending $4\frac{1}{2}$ inches from the upper part of the left lumbar region downwards and forwards to the middle

line, the small intestine was hanging out in numerous coils, covered with dirt; bleeding was occurring from the deep part of the wound. The lad was collapsed and almost pulseless, and had evidently lost a large quantity of blood. He was placed on the operating table, and chloroform was administered, towels soaked in a warm solution of carbolic lotion being wrapped round the protruding gut. All dirt was washed away by irrigation and careful sponging; the greater part of the hæmorrhage came from a divided branch of the mesenteric artery, where the bowel had been wounded close to its mesenteric attachment, and was easily controlled by a ligature. There were found to be six perforating wounds of the small intestine, of different sizes. Some of them being two inches long. They were all sutured with a plain sewing needle carrying fine silk. Halstead's plain quilt suture was employed: it is a modification of Lembert's interrupted suture, and is more rapidly applied than Lembert's, as only half the number of knots are required. The needle is passed at right angles to the line of the wound, and close to its edge, picking up a fold of the serous and muscular coat, and if possible the tough submucous coat, about one-tenth of an inch wide; it is then carried to the corresponding spot on the other side of the wound, a similar fold being taken up. The next stitch passes back in the reverse manner, the silk is cut long, and a loop thus formed, including four stitches, two on each side. The ends of the loop are conveniently held in pressure forceps, and not tied till all the stitches have been introduced. With a little practice the coats of the bowel can be picked up rapidly and safely, without any risk of perforation by the needle: there should be about ten stitches to the inch: in some of the larger wounds as many as twenty to twenty-five were required. There were two wounds at the mesenteric attachment of the bowel, which gave a good deal of trouble, as it was found difficult to obtain accurate adaptation of their edges: but even in these there was complete invagination of the margins of the wound, when the loops were tightened up: the serous coat coming at once into close contact. Sponges were now insinuated between the coils of intestine, and some blood removed from the lower part of the pelvis: the peritoneal cavity was not irrigated. The protruding bowel had a final washing with warm carbolic lotion (1-100), and was returned without difficulty. During the process of suturing the wounds a large round worm was felt in one of the coils of the bowel, and passed some days afterwards. There was some delay in firmly uniting the wound of the abdominal wall, as the oblique thrust of the knife had divided the muscles to a much wider extent than the skin. Eight silk worm gut sutures were introduced, passing through the whole thickness of the parietes, and including the peritoneum. Two of these had to be entered where the skin was undivided and produced some temporary puckering.

The patient was kept under the influence of opium, and only water was given for the first 24 hours. The temperature remained normal, but the pulse was rapid for some days; food was given cautiously and in small quantities at first: an action of the bowels occurred on the 5th day, and the stitches were removed on the 10th day. The wound had healed in a fortnight, with no signs of bulging, and recovery was complete in three weeks.



HINTS ON THE CANADIAN PACIFIC ROUTE TO ENGLAND.

BY W. T. A. BARBER, M.A., *Launceston, England.*

The following pages will be of little use to American missionaries; but an increasing number of English missionaries with their families will be using the Canadian Pacific Route home, and to most of them the countries traversed will be so new that they may save inconvenience and expense by a few hints from the experience of one of their predecessors. It has been suggested to me that a few notes which I sent for the use of my own mission would find a fitting place in the pages of the *Medical Journal*. My own return in the early summer of 1892 was owing to the continuous ill-health of my wife and I was actually in charge of an invalid all the way to England.

We started in May, and remained over a steamer in Japan, landing at Kobe, travelling by land to Yokohama, and there joining the next boat. The C. P. R. are in this matter of "stop-overs" as in every other most obliging; the times and arrangement of the journey being practically absolutely at the wish of the passenger.

Of Japan as a sanitarium there is scarcely need to speak here. After such a climate as ours in the Yangtsze Valley it is a splendid restorer. Expense will be a main consideration with all missionaries. If possible one should aim at hill-life, such as that at Arima or still better tent-life, such as that of the A. B. C. F. M. on Hieizan near Kyoto. The latter of course is only available through the kindness of private friendship. If a higher but still moderate expense be possible, I most strongly recommend the perfect comfort, good table, luxurious baths and glorious scenery of the Fujiaga Hotel at Miyano-shita—terms \$2.25 to \$3.80 a day. It is 1,400 feet above the sea, and easily accessible from Yokohama by train, tram and jinricksha or kago. Hakone with its delightful lake is 1,000 feet higher and beyond; but here are only Japanese houses and Japanese talk. Japanese servants would be needed mostly and the expense need not mount to more than \$1 to \$1.50 a day.

On Arima, referred to above, a further note may be of use as it is so near China—a few hours' ride from the first station out of Kobe. The Japanese hotel will provide very fair food for visitors whose quarters are in little Japanese houses scattered about the village, at a similar cost to that of Hakone. A sort of annual religious convention held there will be an attraction or deterrent according to varying ideas of what is profitable for health.

On leaving Yokohama for Vancouver it is well to remember that in June, one day out from port it is quite cold; ulsters and rugs being needed. Cabins on the maindeck are usually very airy and comfortable; those on the upper deck are not suitable for ladies, and the passages outside then are almost too cold.

On the land journey across Canada light clothing is essential; cool nights are however the rule except in the extreme east.

At Victoria the agent comes aboard and receives the wishes of passengers as to their route. Then at Vancouver he gives a bundle of tickets according to that chosen. I should advise taking the lake steamers from Fort William to Owen Sound as a relief to the monotony and strain.

Baggage not wanted before the Atlantic can be bonded through to Montreal or New York. Baggage checks presented after two months' interval identified my packages and a small payment for stowage liberated them. Trunks containing what is wanted in the journey can be carried in the luggage van; but it is well to have a small bag containing just what is wanted for the night in the cars and nothing else with one. Be careful to pay a lump sum in Shanghai for sleepers and meals across the continent. The saving in trouble is endless and in money considerable.

The meal tickets thus bought give three good meals a day, valued at 75 cents each. Sometimes one feels this too much, and at certain stations one can get out and take a 25 cent cup of tea instead of a meal. No money is however refunded on meal tickets. If in the railway hotels in the Rocky Mountains you find that they will accept meal tickets in part payment of bills it would be wise to use a few thus. If the passenger go by lake steamer the meals are provided on board and this gives a further overplus of meal tickets.

A passenger stopping over at any railway station should always give the station master a day's notice of need of a sleeper on resuming the day's journey.

I should advise stops-over at North Bend, Glacier, Field, and Banff in the Rocky Mountains. Other places according to taste; a stop-over at other places between the Rockies and Toronto (save Winnipeg) involves the sacrifice of the ticket for the sleeper.

At the three first places named above there are charming little railway hotels at a charge of \$3.00 gold per diem. At Banff the Railway Hotel is

large and more expensive. I found the Grand View Hotel at Banff homely and really very comfortable. Its ordinary charge is I believe \$2 a day, and special terms are made for long stays. These places are all from three to six thousand feet above the sea with magnificent scenery. The mosquitoes are worse than in Hankow!

As a whole this is not a route for young children or much baggage.

The first class ticket Shanghai to London includes first class across the Atlantic. This is said to be worth \$100, but is really less. The big lines, Cunard, White Star, etc., charge extra for their *outside* cabins. With a family I think a slower line (*e.g.* from Montreal) would give more comfort. The C. P. R. agents will telegraph for passengers from Vancouver, Winnipeg or elsewhere securing passages by any particular boat, but of course one has in that case to take one's chance of cabins. If there be time the best way, especially for single men, is to go to the Atlantic office oneself, choose cabin, then in payment hand in the exchange order given at Vancouver. Otherwise they rather fight shy of exchange orders for good berths; no doubt there is some discount in their value.

Most people will be wise, even at some considerable addition of expense, to spend some little time over the land journey, it is a life-long memory. But it mustn't be forgotten that the heat in the plains is something overpowering. Hotels grow more expensive further East; but with care comfortable hotel accommodation may be generally obtained for an average of \$3 a day or so. Really good hotels in Toronto, Montreal and especially New York are decidedly dear.

A CASE OF DECAPITATION.

BY JAMES A. GREIG, F.R.C.S., *Edin., Kirin.*

Early on the morning of July 22nd I was called in to a case that presents some points of interest. The messenger sent for me exhibited more than usual eagerness for me to render assistance and for a callous Eastern seemed highly excited. He stated that a neighbour's wife had been in labour for two days and three nights and was now nearly dead from exhaustion; that the midwives had succeeded in delivering the body of the child but that they could not extract the head that the husband of the woman in sheer desperation had severed the body from the head and now the head had retracted beyond reach.

I hastened on horseback to render help, taking such instruments and lotions as I considered likely to be required, my two native assistants accom-

panying me. The patient's home we found to be a miserable one-roomed house in a densely populated part of the city, but fortunately the neighbours were friendly and curbed their natural curiosity at seeing the foreigner feeling that the serious crisis had been reached. If the strange doctor cannot save her she must die. The patient I found to be a short muscular woman of 28. Breasts and chest were well developed. No apparent signs of mal development, deformity or strumous disease. She was lying on the left side on the brick bed groaning heavily when I entered, her aged mother bending tenderly over her keeping a swarm of flies from settling on her face. Her husband informed me that this was her second confinement, but that the previous child had been delivered with the utmost difficulty after a long labour, dead and much contused. He said that the previous evening after the midwives had used great force to extract the head, but which would not move, he severed the neck with scissors. I asked to see the body and on it being produced I found it had been severed about the 4th cervical vertebra. The body seemed small for a full time child but was otherwise normal.

Proceeding to examination the conditions discovered were: Pulse 84 fairly strong. Respirations rapid with groaning. Not the expulsive screams of a normal second stage.

Abdomen enlarged and somewhat tense as if from fluid—very tender, I presume from the belabouring the midwives had given it. The child's head could not be palpated though there was more sense of resistance below the umbilicus. The lacerated cord made fast to an old shoe I then discovered under the coverlet. Tracing it up the vagina I made out the sacral promontory very low down and not more than two inches from the symphysis pubis. With two fingers I reached what I took to be a partially dilated cervix pretty high up. This however I found on introducing the whole hand into the vagina not to be the cervix but the remains of the child's neck. The cervix was fully dilated and the cord could be traced up behind the stump of the neck. As I could feel the cervical vertebræ my diagnosis was now sufficiently definite. Accordingly chloroform was administered. Whilst this was being done the room was disinfected with Condy's fluid as well as possible. This cleared the room of the sickening smell coming from the yellowish green putrid discharge which was coming away. Hands and instruments having been well carbolized as a preliminary I introduced the catheter and was not surprised at drawing off a large basinful of urine. This relieved the tenseness of the abdomen considerably and while pressure was made by a bandage I again introduced my whole hand into the vagina and this time managed to reach the child's head. Not having a hook however I could not get a grip of it and had to give it up and send off one of my assistants for a hook. In about an hour he came back unable to find it, but with a volsella and a pair of

oesophageal forceps. With these I tried again and soon succeeded in steady-
ing the head with the volsella whilst I perforated the skull and crushed.
Gentle pressure above and traction from below delivered the head—the
placenta following immediately. As there was no bleeding whatever I suppose
the placenta had been separated previously. Keeping up pressure over the
lower part of the abdomen I then washed out the uterus thoroughly with hot
hydrarg perchlor: 1 in 5000 and made the external genitals as aseptic as
possible placing a pad of carbolized wool to catch the discharges. A hypo-
dermic of ergotine was administered to strengthen the uterine contractions
and powders of five grains each salicylate of soda and quinine ordered to be
given three times a day.

Nothing noteworthy was observed in the head or the placenta.

The after history was disappointing yet not surprising. All went well
for the first week, according to the patient's husband, who came every second
day to report. He was well supplied with antiseptics for washing the
external parts, and morphia was given occasionally, when the after pains were
severe. My assistant visited her and reported her doing well. On the tenth
day however the message brought was that she was suffering from diarrhœa
and pains in the abdomen. From false delicacy, fearing to run contrary to
the Chinese prejudices regarding male attendance in such cases I did not go
myself to see the patient till the twelfth day. I then went because the
symptoms did not seem to be improving, not fearing any serious complications.
How saddened, disappointed and humiliated I felt when I found her in a
deplorable condition of filth and neglect. The room was smelling. The
discharges had excoriated the thighs, vulva and buttocks. There had been no
attempt at keeping her clean and she was in high fever with pulse 100
per minute and abdomen tympanitic and painful on pressure. Her only
chance was clearly again to wash out the uterus, and if possible arrest the
sapræmia. This I did at once, and in doing so discovered that a vesico-
vaginal fistula had formed, probably from the long continued pressure of the
head causing sloughing of the anterior vaginal wall. The antiseptic used was
again hydrarg perchlor: 1—5000. She recovered from the operation well and
I expected she would yet be saved. She sank however and died the following
morning.

I cannot but reproach myself for not insisting upon seeing the patient
myself daily till she was out of danger, and thus preventing being misled by
the favourable reports brought from day to day by her husband.

If this lesson makes me more careful in the future, and the recording of
it is of any service to my brother medical missionaries, perhaps some other
poor sufferer in this suffering land may reap the benefit.

ABSTRACT OF AN ADDRESS ON CHOLERA NURSERIES
AND THEIR SUPPRESSION.

Delivered at the Congress of the British Institute of Public Health, Edinburgh.

BY MR. ERNEST HART.

I claim to have now established on an overwhelming basis of evidence collected from every part of Europe the dicta—founded upon the original investigations by Snow and Simon on the British epidemics of 1848 and 1854, and by myself and Radcliffe of the East London epidemic of 1866 :

1. "That cholera is a filth disease, carried by dirty people to dirty places, and diffused by specifically poisoned water."
2. "That you may eat cholera and drink cholera, but you cannot catch cholera."
3. "That cholera may be considered for all practical purposes as an exclusively water-carried disease, and that it is carried only by water poisoned by human discharges."

I may venture to add that these plain propositions are essential British additions to our public health knowledge ; that they have rid England of the panic formerly excited by the approach of cholera, and have pointed the way to the measures by which she and other countries may be rendered insusceptible of cholera. Cholera can find no lodgment where the whole of the potable water is absolutely pure and unpolluted.

I do not stop here to defend these propositions. The proofs—the overwhelming proofs—are set out in the analysis of every European epidemic since 1848, and having recently been endorsed by the American Medical Association at Milwaukee, at the close of my address "On Cholera, a Water-borne and Preventable Disease," and forwarded with their endorsement to all the sanitary authorities of the United States, they may be considered to be pretty universally accepted on both sides of the Atlantic.

They received their last crowning proof at Hamburg, Altona and Nettleben, which paid a terrible penalty for continuously neglecting them ; and are now being rewarded by relative immunity for having tardily and lazily acted upon them.

To rely upon quarantine or medical inspection for the prevention of cholera is to

Bolt the Gate with a Boiled Carrot.

At such a bolt and bar commercial egotism laughs, and the needs of commerce and of modern travel snap it at every port. Neither quarantine nor medical inspection ever yet kept out cholera successfully for any length of

time. It is a sieve and not an armour plate, a pervious stockade and not an impregnable wall; cholera will creep under it and climb over it, outflanking the cordons and the custom house officers who man the walls.

We should be in a parlous state—spite of all our precautions at our ports—if we had not spent more than a hundred millions during the last twenty years in waterworks and drainage works to purify our water and soil. France, Spain, Italy and other Continental countries have learnt this lesson from us slowly, and owing to their neglect of it, and according to the measure of that neglect, have since 1866 been successively subject to fearful ravages of cholera epidemics, from which we have during all that time (without much port inspection, or with none at all) been free.

The extinction of cholera as a European epidemic is an object which I believe can be attained without no great difficulty, and I predict will be attained within no great distance of time. Two ways are open, both of which can be simultaneously followed. The one is to render the European countries impervious to its incursions by universal and close attention to the purity of the drinking water. Wherever this is not attained and the civic sin is committed of supplying suspicious or polluted water to the population, the habit of boiling it should be universally inculcated. This would have saved Worthing from its epidemic of typhoid, and would now stop the extension of that epidemic.

But pending the sanitation and purification of the European water supply (and that work is very far from complete, even in Great Britain), there remains another way of keeping off cholera, on which I venture to bring before you to-day some details and propositions, which I am inclined to hope you will consider of international importance, and worthy of the attention of our own and other governments.

The Stronghold of Cholera and its Sally Gates.

So long as the whole of Europe and America lay themselves open to the incursions of cholera and its ravages by maintaining certain sanitary neglects, we should act wisely by tracking it to its lair and dealing with it there, instead of relying on any such measures as fumigation, railroad or frontier quarantines, "libations and sprinklings" with antiseptic powders and fluids—all vain ceremonies and mere sacrifices to popular ignorance and prejudice; the idolatrous homage which dirt pays to cleanliness.

Cholera has its entrenched fortresses and its sally gates. The advent of cholera is no longer mysterious, nor are the ways and incidents of its diffusion unknown. It is a man-created epidemic, carried along the lines of human communication. Its home is in India, and its gathering grounds and sally gates are the Indian fairs and the Meccan pilgrimages. Its routes are mainly

two : one across the Caucasus, through Russia to the Baltic ports, and thence westward, either directly or through Hamburg—a frequent distributing agency ; the other through Mecca, by pilgrim caravans and boats, *viâ* Suez to Europe. We used to talk of thunder as mysterious, and of cholera as a visitation of Providence, in face of which man is powerless. The latter is a piece of presumptuous ignorance clothed in the guise of religion.

We are all-powerful against the propagation of cholera now that medical investigation has ascertained the methods of its diffusion ; far from its being a disease which comes by Providence and goes by drugs, it is one which comes by neglect, travels by caravans and steamers, and railroads ; is propagated and fostered by man in its areas of chronic prevalence, and is carried by man along definite and well-known lines of human intercourse. To observe this for yourselves, you have only to examine the maps which I show you. I now propose to you

A Working Plan of Campaign, with Detailed Directions against Cholera in its Stronghold and at its Gates of Issue.

Mr. Hart then drew attention to

Cholera, and the Perennial Danger

caused to Europe and the world by the insanitary state of Mecca. Cholera could only advance from India to Europe by stages, and Mecca, with its thousands of pilgrims coming and going every year, was a half-way-house, an advanced post, a base of attack which gave cholera a great advantage, and which left Europe constantly exposed to its incursions. Great misapprehension had existed as to the mode of diffusion of the disease.

Cholera had been spoken of as

A Water-borne Disease,

and people had chosen to interpret that as meaning that it floated down rivers ; nothing could be more inaccurate. By this phrase I mean, said Mr. Hart, that it is caused by a living poison, which is swallowed, and which, in 99 cases out of 100, is carried to the mouth in water. Within the body this poison grows, multiplies, and in its growth causes the disease, in the course of which it is discharged, and is then ready to take up the other phase of its life, to grow in damp earth, to breed in dirty water, to be washed by rain into watercourses, to soak through porous soil into wells, in some rare cases, perhaps, where cholera is very rife and filthy habits are over-abundant, to be blown by gusts of wind or carried by the hand into food, and thus, by one means or another, but in an infinitely large proportion of cases by means of water, to get round to another person's mouth, to be swallowed, and again set

up the whole cycle of events. It is not a mere matter of rivers and watersheds but of cooking utensils, drinking cups, water bottles, and especially of cisterns and reservoirs. The disease is water-borne, because it is carried by water to the mouth, but that is only the last stage of a journey, circuitous and often difficult to trace, by which it has travelled from its past to its present host. Inside the body the poison passes quickly from the mouth to its exit, often killing the patient in its passage; outside its course is halting, erratic, various in manner and intensity, depending largely on the physical surroundings in which it finds itself (the soil, the water, the temperature) by which oftentimes it is destroyed or amid which it dies out; but if it lives through its adventures and lands again in the body of a man susceptible to its influence, then again it has its chance and sets up afresh the whole disease. If we fully grasp this conception of the malady facts fall into their places. The seasonal curve becomes a curve depending on the proper heat and moisture requisite for the development of the most active outside life of the contagion, on thirst causing large drinks, on scanty and therefore foul water, on rains washing accumulated filth into the tanks and watercourse, on a mass of physical causes, and not on the spread of an "epidemic influence." The varied susceptibilities of individuals point to varied powers of digesting, and thus destroying the contagion, and the greater liability of some nations to be attacked depends on their greater willingness to drink fæcally-contaminated water. Truly cholera is a filth disease.

The region of the Lower Ganges is

The Home of Cholera.

but that is largely in consequence of the habits of the people, and their constant use of foul water for drinking purposes.

The Hindu Fairs: Hotbeds of Cholera.

Mr. Ernest Hart described the fairs and bathing festivals which are such a marked feature in Hindu life, and pointed out their influence in disseminating disease. They are annually frequented by thousands of pilgrims. Nor are these merely local worshippers, drawn only from the great water-shed which the Ganges drains. Wherever the Hindu faith extends there the legend of the Ganges is believed, and so from every village in India come pilgrims to the holy stream, bringing with them germs of such diseases as may then happen to be epidemic in their midst, or taking back with them to their villages such infections as they may pick up at the holy place. The fair is not only an exchange for merchandise, it becomes a veritable clearing-house for contagion, to which each brings what he has and takes away what he can carry.

Many illustrations were given showing how disease was transported into distant villages by returning villagers. At these fairs and festivals the very aim and object of their pilgrimage is to bathe in the sacred river and drink of its holy waters. Is it then to be wondered at that they suffer? Amid so great a crowd, largely drawn from the "endemic area," some one or other is sure to have the cholera and to foul the stream, giving to those who drink the fetid water in hope of sanctity an infection which quickly brings about their death.

The pilgrims, however, are not the only sufferers. Soon after the festival is over they are scattered to the four winds of heaven, carrying with them the infection. Some drag their weary bodies homewards till they drop by the wayside and die; others by boat or train are carried to distant parts, where, if they do not die *en route*, they set up fresh foci of disease, from which infection spreads amongst their neighbours. Hardwár fair is by far the chief disseminator of cholera.

The danger attaching to these vast gatherings at Hardwár, and especially to the great Kumbh fair, is very real. Regarding them a sanitary commissioner says that previous to 1867 "very little remains on record, but that little is

A Record of Disease and Death."

In 1867, and again in 1879, the festival was followed by an outbreak of epidemic cholera, which, on the latter occasion, rapidly extended to the western districts, and, in its extreme virulence, carried off large numbers of the hill people.

The Great Sanitary Experiment of 1891.

A grand experiment, however, had been tried in 1891. A definite attempt had been made to deal with one of the greatest, and hitherto most dangerous, of these fairs, the Kumbh fair at Hardwár, on sanitary principles, and to see whether by that means it could be prevented from becoming the starting point of further mischief. Mr. Hart gave a picturesque description of the proceedings at the fair, and stated in detail the sanitary and administrative precautions which were taken, the extent of which will be best appreciated by the fact that although the fair did not take place till April, the preparations were commenced in the preceding December, and that at the time of the festival, besides Bengal cavalry, upwards of 1,000 police were on duty to keep order, that there was a large sanitary patrol always inspecting the town and camp, and that a force of 1,342 sweepers was engaged for conservancy purposes, and eight temporary hospitals erected. When the trial came

The System stood the Test.

Cholera was prevalent in the eastern districts, and cases were reported from the pilgrim centres of Benares, Fyzabad, and Allahabad during the period of the fair. The pilgrims coming from cholera-infected districts brought the infection with them, and two people died of undoubted cholera at Hardwár during the most crowded period, but they were promptly isolated, and the infection did not spread. No more cases arose in the town or camp, nor did the disease develop on the track of the dispersing pilgrims. And thus we had the novel experience of a Kumbh fair at Hardwár without an epidemic of cholera spreading all over the surrounding country concurrently with the dispersion of the gathering.

The Perils of Mecca, and the Remedy.

We must now, said Mr. Hart, turn our attention to another great religious festival. A different religion, a different people, a concourse drawn together from a far wider area, but one which, like the Hardwár fair of old, has become a focus and a diffusion point of cholera—a cause of death and disaster to the pilgrims and of danger to the world.

Mohammedanism is not dead, and Islam still remains the faith of two hundred millions, or fourteen per cent. of the human race; a faith which is absolute and obedient, and which leads intelligent men—men of position, and whose lives are cast in pleasant places—to suffer pains and discomforts which to an ordinary *dilettante* Christian would be absolutely intolerable, rather than break the Commandments.

Amongst the ordinances, which to the faithful are commands, is that of pilgrimage to Mecca. From Turkey, from a belt of country extending eastwards across Asia to the furthest confines of Malay and from the whole of Africa, pilgrims set out every year, turning their steps towards Mecca, in obedience to this command.

'Some fall sick, many die.

From about 60,000 to over 100,000 each year attain their end, months, and sometimes years, having been devoted to the task, and sufferings and hardships undergone which it would be difficult to describe.

The city of Mecca is mostly modern, having been frequently devastated by winter torrents from the hills around; the streets are, for an eastern city, broad and airy, but unpaved and filthy. Drainage does not exist; water there is in plenty. The population is about 60,000, and is mainly supported by the proceeds of the annual pilgrimage and by the manufacture of sacred relics. Compared with the problem of dealing with an Indian fair the purification of Mecca would seem by no means an insuperable difficulty. Clean dry rocks,

pure water, and a blazing desiccating sun, are the materials on which we have to work ; man, and man only, is the difficulty. No infection need defile the water, which constantly flows through the underground conduit from the mountainous district beyond Arafa; no local disease need reappear in the food, which all comes from afar ; no difficulty need be found in dealing with excreta which, buried in the sand, quickly dry up into a harmless powder, and might be made by degrees to fertilise the arid soil. The inhabitants, however, choose to live crowded together, and to surround their houses with refuse and filth, they choose to foul the water supply, and from immemorial usage they regard the pilgrims as victims to be fleeced rather than as co-religionists to be protected. The result is that while Mecca may be well enough suited for the Meccans in ordinary times, it is not in any way prepared for the strain which comes upon it during the annual pilgrimage, and if a disease such as cholera be then introduced, it straightway

Spreads like Wild Fire.

If however we inquire how it spreads, by what means the infection is distributed, we find that here, as in India and everywhere else, the main factor, the constant cause, is the drinking of cholera polluted water.

How Cholera is spread there.

The proceedings of the pilgrims themselves, the ritual gone through by them during their stay, none of which they like to miss, little as its meaning may be understood, also tend to the spread of the disease, if once it be implanted among them. The march to Arafa, the night spent there in devotion, or in the crowded coffee booths, the "stand" by the Hill of Mercy, the rush to Mina, the sacrifices, the intolerable stench from the thousands of slaughtered animals, the "tawaf" or seven-fold circuit of the sanctuary, each of the many thousand pilgrims kissing the black stone as he passes, the blazing heat, the intolerable thirst, the religious fervour which leads them to accept everything as holy which belongs to Mecca, all drive the unfortunate pilgrims to the consumption of the vilest fluids under the name of water. The natural functions must be attended to, the ground is defiled, there is no attempt at conservancy, the wells are poisoned by filth, and if that happens to be choleraic, cholera breaks out.

The Well Zamzam.

One of the observances is especially dangerous. Next to the Ka'ba, the principal point of interest in the Mosque is the Well Zamzam (Well of Hagar), a deep shaft said to be the source from which Hagar drew water for her son Ishmael. The pilgrims are many, the well, however, is but one, and its water not plentiful at the best. Yet everyone wishes to drink and to bathe in these

miraculous waters. Each pilgrim in turn, stripped to the waist, stands beside the well while a bucket of the water is poured over him ; of this he eagerly drinks as it flows from the bucket, the rest flowing over his naked body, soaking through his loin cloth, and streaming back into the well—to be used again. His place is immediately taken by another, and another, and so on,

Each drinking the Washings of the Rest.

Can we wonder, then, that this water on analysis is found to have the characteristics of bad specimens of sewage, or that after the pilgrimage is over the roadside should be found strewn for a dozen miles with the dead bodies of the faithful, killed by a draught of dirty water, after all the difficulties and dangers they have overcome? There is a bathos about it which would appeal almost to one's sense of humour were it not so serious an affair. This is an actual business of to-day. I am not speaking now of things which happened years ago.

The Story of the Pilgrims of 1893.

From June 8th to June 25th this year there were 2,201 deaths at Mecca ; and in one day, June 26th, there were 499 at Minah and 500 at Mecca, making in one day 999 deaths.

A Thousand Deaths a Day.

From June 26th to July 24th there were 499 deaths at Minah, 3,408 at Mecca, and 303 at Jidda. I have an account of the state of Mecca, written by Dr. Chaffey, an Egyptian Moslem sent by the Quarantine Board as their sanitary correspondent to Mecca, which reveals a ghastly state of things happening one may say, almost at the door of Europe, taking account of rapid steam communication. Dr. Chaffey says : "On arrival at Mecca I commenced at once an inspection in the town. The hospital, private houses, and tents were full of people suffering from cholera. I sent you by telegraph the number of deaths declared officially, but, on account of the extraordinary mortality, it must be admitted that the number of deaths could not be precisely known, and it may certainly be considered to have been double of that officially declared, even more.

The Dead lie in Heaps.

"At Moona it was impossible to bury all the dead, which lay here and there in heaps. Round about the Syrian caravan (Mahmal) there was a large number of bodies lying unburied. Returning from Moona to Mecca I found the route strewn with dead. In the town of Mecca itself dead bodies were lying about in a state of putrefaction, and when they were at last transported to the cemetery they were thrown down there, and left lying for days unburied from want of a sufficient number of grave-diggers."

In 1891 Dr. Saleh Soubhy,* the Egyptian delegate to the Hedjez, reports that out of 46,953 pilgrims who arrived by sea, only 25,253 returned, the remainder—that is 21,700—having died, chiefly of cholera.

The whole affair is horrible, the place is a slaughter-house, where the best men of the Mohammedan world are being every year destroyed. For it must be borne in mind that the injunction to visit Mecca is not imposed on everyone, but on those only who are able to devote the time, and able to provide for their families while away. We make a great mistake if we class the Meccan pilgrims with the poor, the miserable, and the helpless; the cream of the faithful go to Mecca; and as years go by, and the knowledge spreads that cholera is a preventable disease, a mere filth disease, spread by dirty customs and dirty water, Mohammedans are awaking to the fact that their best men are being gratuitously sacrificed, and from sheer ignorance and stupidity exposed to a danger never contemplated when the duty of pilgrimage was imposed upon them. But no nation, no part of the world, can isolate itself or afford to stand aloof from the rest. This is not a mere Mohammedan question—what is a danger to the pilgrims is a danger also to the world, for it is through Mecca and its pilgrims that cholera spreads to Egypt, and thus to all the ports of Europe. It is not, however, by quarantining the pilgrims and setting up a series of lazarettos, which themselves become fresh centres of infection, that cholera can be stopped, but by looking after the pilgrims' resting places, and rendering them so clean that if cholera arrive it shall not spread, and shall not set out again on its forward march.

Mecca is the Place

in which to stop the cholera. From every point where cholera can originate pilgrims set out, each of whom may bring with him the infection. All pilgrims, however, go to Mecca, where they wait time enough to trap the cholera, and render it harmless if Mecca were but a cleanly place. Again, when the days of pilgrimage are over the Hajjis set out on their return, radiating from Mecca to every quarter of the compass, and carrying such infection as they may have gained. This, however, is not now the infection which was brought from India, but a fresh generation born at Mecca, which would never have come into existence at all but for the uncleanness of the place. Mecca then is the one place where one can put the foot down firmly upon cholera, whether coming in or going out. If the disease arrives at all it comes there one by one, but it goes out by thousands, and it is giving it an enormous start to let it get to Egypt before it is interfered with. Egypt is practically part of Europe.

* *British Medical Journal*, 1891, ii, p. 1370.

The difficulty is who is to undertake the work. The nominal ruler is the Sultan, who, being the religious head of the Mohammedan world, would probably hesitate to incur the odium of being dictated by the Christian powers in such a matter. The actual ruler is the hereditary Shereef of Mecca, who is so firmly fixed in his position that the Sultan might well decline to enter into conflict with him, risking as he certainly would thereby a split among his followers.

Direct interference by any single European power is hopeless. Any government making the attempt would soon find itself involved in the mazy labyrinths of the Eastern question. To wait for the spread of education in sanitary matters to such dark places is to wait till doomsday.

The Sultan is the Man.

The only person who can usefully interfere is the Sultan, but to interfere with efficacy he must be supported by a strong backing of Mohammedan opinion. This can only be done by the united action of the leading men in the various centres of that religion. If they can be brought to a knowledge not only of the greatness of the evil, which by personal and family experience they know well enough, but of the direction in which the true cure lies, there may be hope of some action being taken.

What to do.

Let me then, said Mr. Hart, formulate the steps which ought to be taken to save the Mohammedans from the danger caused by their pilgrimages, to save the world from the danger caused by Mecca.

1. The Indian sanitary services should be re-organised.
2. A complete sanitary regulation of all Indian fairs should be undertaken, the precautions so successfully taken at Hardwár in 1891 and of which full details have already been given, being taken as a type.
3. A rigid system of medical inspection of all pilgrims should be instituted at the ports from which they start. The sick being detained and the healthy alone allowed to proceed. This, it may be added, would be all the more effectual in regard to Indian ports, from the fact that a second weeding out of the infected can take place at Camaran.
4. The medical inspection at Camaran should be so conducted as to ensure its complete efficiency.

Women Doctors for Indian Women.

Among the inspectors should be qualified medical women, without whose assistance the medical inspection of Mohammedan women must be either a farce or a great cause of offence, and if possible these medical women should

be selected from among Mohammedan women doctors, of whom numbers are now educated in India.

5. At Jidda the sick would again be weeded out.

6. The sanitation of Mecca should be thoroughly re-organised under the auspices of the Turkish authorities. The water supply from its source to its distribution should be carefully inspected and protected from contamination.

Clean out the Poison Well.

The poison Well Zamzam should be cleaned and provided with a larger supply and a continued change of water, and the most complete precautions taken that the water used to bathe the pilgrims should at once run away, and under no circumstances return to the well.

7. During the time of pilgrimage a complete system of conservancy should be carried out on the Hardwâr plan, the strictest precautions being enforced to insure the immediate removal of all refuse and the prompt isolation of all sick.

Mohammedan Public Opinion.

I am glad to be able to say that the Mohammedans both of India and Turkey are now moved to solicit some such system as I have above sketched. The Mohammedans of Madura have met in public to consider the outline proposals of my essay on this subject in the *Nineteenth Century*, and have resolved to support them by petition. Mr. Ahmed, the President of a Mohammedan Association in London, writes to me this week as follows :—

“ Common Room, Middle Temple, July 26th, 1893.

“ MY DEAR SIR,—I have learnt with much pleasure from you that you are actively taking up the subject of the sanitation of our Holy City, and of the sanitary supervision of Mecca pilgrims during the period of pilgrimage, with a view to the diminution, and if possible the prevention, of the fearful mortality which accompanies the pilgrimage from cholera and other zymotic diseases, and with a further view to the prevention of the diffusion of Asiatic cholera from a centre of infection so dangerous alike to Asia and to Europe. This matter has already engaged the attention of many Mohammedans both in India and in Europe, as may be seen from copies of published communications by myself and others. On my visit to Constantinople last year, I had personally brought the matter to the notice of an influential aide-de-camp of the Sultan, who promised me to lay my views on the subject before His Majesty, and let me have a reply at his earliest convenience. As I am particularly interested in the matter personally, I shall be happy to give every assistance in carrying out this object. Taking into consideration the annual loss to the Mohammedans of thousands of precious and promising lives, I have every reason to think that all enlightened Mohammedans will give their cordial support to suitable representations to His Majesty the Sultan on this subject. You must not overlook, however, the religious and financial difficulties attending the question, and I must therefore, in conclusion, tell you that all sanitary reforms in the Holy City can only be

carried on through the agency of learned and enlightened Mohammedans,—
With best wishes, I remain, my Dear Sir,

Yours faithfully,

RAFIUDDIN AHMED."

"Ernest Hart, Esq.

Thus we may expect the active independent co-operation of enlightened Mohammedans in approaching His Imperial Highness the Sultan, the Shereef of Mecca, and our Indian Government in urging their co-operation in the campaign against the diffusion of cholera from its chief breeding places.

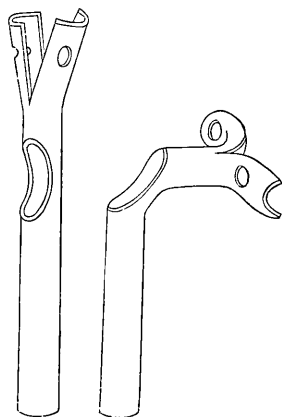


A SIMPLE AND ECONOMICAL TRACHEOTOMY TUBE.

Dr Hastings, late of the Children's Hospital, Shadwell, London, suggests that after the track has become fairly free by wearing a silver tube for two or three days, a soft and efficient tube can be easily made with a piece of india-rubber drainage-tube.

The accompanying wood-cuts render needless any description of the apparatus.

In inserting the tube the opening



must be turned towards the back of the trachea, so that it may take the place of the window which is found at the angle of many metal tracheotomy tubes; the part below the window then lies in the trachea without any tilting. Dr. Hastings had successfully used these tubes in cases in which the metal ones had kept up tracheal irritation.—
Brit. Med. Journal.

Soft Tracheotomy Tubes.



A MODERN CHINESE ANATOMIST.

By JOHN DUDGEON, M.D., *Imperial Maritime Customs, Peking.*

Wang Ch'ing-jen (王清任), a native of *U-t'ien-hsien* (玉田縣), about 200 *li* (70 miles) to the east of Peking, published a book called *I-lin-kai-tso* (醫林改錯) in the 29th year of the reign Tao Kwang (道光) (1850). The work is in one small octavo volume, divided into two chapters, the first being anatomical, in which are pointed out, according to the writer's ideas, the mistakes and misapprehensions of the ancients, with his own views of the structure and functions of the body, and the second is taken up with a system of practical medicine founded upon his observations and consisting, for the most part, of the remedies which he or others found useful in various diseases. With the latter chapter we have now nothing to do, but the first is so interesting from a physiological point of view as presenting us with the ancient medical knowledge possessed by the Chinese with the writer's criticisms and his investigations into human anatomy exemplifying such a rare spirit of enquiry—a spirit altogether foreign to the Chinese mind. If such a man as Dr. Wang, of a truly enquiring and scientific turn of mind, had happened to come across a Western physician, medical missionary or any of our works (but unfortunately at that time none had been translated into Chinese. Dr. Hobson's anatomy was first published at Canton in 1851) he must have proved an apt pupil. He would have had his gropings after the truth directed, his false inferences corrected, and he would have produced a work which would have dethroned the *Nei-ching* (內經), the *Ling-shu* (靈樞) and *Su-wen* (素問), and all the successive medical writers who have followed so slavishly these ancient books long antecedent to our Christian era. As it is he exposes their errors and inconsistencies by quoting one against another, a style of writing of which he seems to be a perfect master, as far as his own partially enlightened knowledge can lead him. The spirit in which he follows out his investigations is to be highly commended; he is often right and justly severe upon his country's medical writers, but in many cases too the ancients are nearer the truth than he is. His fundamental error lies in mistaking the arteries for air vessels, an error certainly pardonable when we consider that up to the time of our own immortal Harvey some 300 years ago we ourselves did not know that the arteries contained blood and our name for these blood vessels still retains our earlier misconception, viz., *arteria* air vessels. But for this serious error he might have hit upon the true circulation of the blood. He never seems to have seen a divided artery and the spurting of the blood and an ordinary execution might have convinced him of his

error regarding the air vessels. He never seems to have noticed the different characters of the red and venous blood. On account of this blemish his new system of the body and its functions is as difficult to understand as that of *Hwang Ti* (黃帝) and *Chi Po* (岐伯) 2000 years before our era. His work, although known in this part of China by the literati, has not produced any effect upon their medical stereotyped ideas nor led so far as I know to further enquiry and investigation, but the work is useful as indicating his careful and numerous examinations, his unremitting research and general honesty and modesty and therefore is a pattern for future Chinese workers in this and other departments. With so many opportunities around the Chinese in the slaughtering of oxen, sheep, pigs, etc., on the streets, with the viscera, especially the heart and lungs everywhere exposed at the butchers' shops, with the country dotted over with graves, many of which are exposed by the ravages of the weather, dogs, pigs or wolves, or the exigencies of cultivation, the customs of the Mongols of leaving the bodies of their dead unburied to be devoured by wild beasts and birds, one might have imagined there was here a splendid field for anatomical research. With such opportunities in our country in all probability the passing of an Anatomy Bill over 60 years ago would never have been rendered necessary, because the dearth of bodies for dissection would in all probability never have been felt. We should not then have been punishable at one and the same time for not knowing our profession and for trying to learn it in the only effectual manner. Law, religion, filial piety and prejudice have put dissections out of this question in China. The principle in China is that the body received from one's parents should be kept complete and unutilized. To allow it to be maimed or disfigured or they themselves to do so, except for the nourishment of these same parents as in the case of soup made from their flesh, is to slight and undervalue the gift of their parents and would be reckoned among the sins of filial impiety and deservedly punished, if not in this life, most certainly in the next.

After several prefaces by friends by way of introducing and commending his book, a practice everywhere common in China, and a picture of the author, the work begins by exposing the main errors of the ancients and so preparing the way for, and showing the importance of, his discoveries. To cure disease, he sets out by remarking, we must know the viscera. According to the ideas of curing disease, held by the ancients, discoursing on the viscera and origin of disease, the real *fons et origo mali* is completely lost sight of and notwithstanding one's ability, one cannot explain disease by reference to the viscera. Among those who have written on the viscera and have given delineations of them there is not a single point in which one agrees with the other. One author shows that the ancients among themselves differ widely and therefore that both cannot be true and his object is to point out their errors and

indicate what is true and therefore reliable. Then follow examples of the want of agreement among themselves. The ancients said, e.g., that the spleen is related to earth, that earth governs the immovable and therefore the spleen does not move and if it move there is no rest; how then at the same time do they say that when it hears a sound it moves. They also say when it moves it grinds the stomach and dissolves the food, but if it do not move then the food is not digested. So you have here the mistake of the spleen moving and not moving. The lungs again are said to be empty and to resemble a wasp's nest, that they have no openings below, that in inspiration they are full and in expiration empty while at the same time it is said the lungs have 24 openings, placed in rows and divided into sections and that they communicate with the air of the viscera. This relates to the error of the 24 openings. Regarding the kidneys there are said to be two, and the moving air in the middle of them is said to be the *ming-men* (命門), door of life, if so why do others say the left is the kidney and the right is the Door of Life. The two kidneys have one body and what reason is there for giving them two different names. If the moving air is the gate of life what is its nature? This is the mistake in regard to the kidneys. The liver is said to have two roads or blood vessels proceeding from the two sides of the ribs; one ascending to the head and eyes, the other going downwards, surrounding the *yin-chi* (陰器), genital organs or organs related to the dark or female principle in nature and thereafter descending to the big toe. If there are then two vessels, a right and a left, why is it said by others the liver is on the left side of the body and that the left ribs are related to the liver. There can therefore be only one vessel. Why in discoursing do they speak of right and left. How is this? (The Chinese are perfectly at sea in regard to the number, position and function of the various viscera.) The heart is the sovereign. The five functions of the brain are all said to be stored in the heart. But how about the spleen which, according to others, is the seat of the will, the kidney of ingenuity, the liver of policy, the gall bladder of determining, so that in this way all the viscera take part in the mental processes and yet some of the ancients say that the heart only is concerned about these things. Each part has an intellectual apparatus and no one has condescended to tell us what is, or where it is stored. This is a sample of the unintelligible way in which they discourse upon the heart. The stomach is said to govern the digestion of water and the cereals. Others say that the movement of the spleen is the cause of digestion; the upper mouth of the stomach is the *pên-mên* (賁門), cardiac orifice; food enter the stomach; the delicate air from the *pên-mên* ascends and is relegated to the spleen and thence is dispersed to all the pulses. According to my idea these views have no reason on their side. The lower door of the stomach is the *yen-men* (幽門) (pylorus); this is the upper mouth of the small intestines.

The ancients discoursing on the small intestines considered its office that of receiving and storing and the digested matters issued therefrom, and the food entered the small intestines and became fæces; below in the *lan-mě'n* (關門) (ileo-cæcal valve,) that is, the lower door of the small intestines and the fine and coarse are here divided; the fæces went to the large intestines and passed out at the anus; the water to the bladder and became urine. According to this view the urine percolates out from the fæces, *fen* (糞), which would make the urine of a very fœtid odour; indeed people have used children's urine as a vehicle for the administration of medicines or people themselves have used their own urine to cure eye diseases; the taste is said to be saltish not fœtid; again if food and water unite together to form fæces, the latter should be very thin and we should have diarrhœa. Fowls and ducks have no separate urinary apparatus, food and water pass together. This condition of food and water going together in them is therefore all right; in horses and cows where there is the existence of the small convenience, *penis* (小便) this principle does not hold; in man it is still more so. As regards what the ancients say of the small intestines digesting food and water and passing out by the *lan-men* (關門) (ileo-cæcal valve), everybody is convulsed at the very idea. Such views do not need refutation. They have been a subject of ridicule all down the ages.

The pericardium is said to be a delicate tendon like silk fibres connecting the heart and lungs. Others say the yellow fat outside the heart is the pericardium. Others say the pericardium is the yellow fat below the heart, above the horizontal membrane (diaphragm) (膈膜) and below the vertical membrane (mediastinum). Others say it is in the centre of the sternum or thereabouts, having a name but without form. Although it is said to have a name and to be without substance, how is it said that the *shao-chueh-yin* (少厥陰脈) pulse is the *ching* (road or vessel) of the pericardium? So many have discoursed on the pericardium, what after all we would ask is it? How can it be so many different things?

Discoursing of the three divisions is a still greater subject for laughter. The *Ling-shu* (靈樞) (one of the oldest of the Chinese medicine books) says that the *shou-shao-yin* (手少陰) of the three *chiao* (or divisions of the body) (三焦) is above and the *tsu-tai-yang* (足太陽) three divisions are below. According to this view then there are two, three divisions. The *Nanching* (難經) in its 31st section which is wholly taken up with this subject, says that the upper *chiao* is above the stomach; it takes in but does not put out things; the middle *chiao* is placed at the central part of the stomach and its function is to dissolve the food and fluids; the lower *chiao* is below the umbilicus and separates the urine and fæces. It is also said that the three *chiao* is the road taken by the food and water, thus giving the three *chiao* a shape or body. The

Nanching also says that the space between the two kidneys is that where the air originates and is the root of the three divisions. In this sense, therefore, the three *chiao* have no form. So we are, according to the Nanching, that it has no form and that it has form and that there are two, three *chiao*s. *Wang-shu-ho* (王叔和) (a celebrated physician) speaks of the three divisions as having a name without a body thus following the Nanching. *Chen-wu-chae* (陳無擇) of the Sung dynasty (10th century) understood the omentum to be the three divisions (脂膜). *Yuen Chun-fu* (袁淳甫) says that the three divisions are the reddish coloured lining of the body (the mucus membrane). *U T'ien-min* (虞天民) points to the hollow in the chest as the three divisions. *Chin I-lung* (金一龍) says that in front are three *chiao* and behind are also three *chiao*. The ancients, therefore, are quite at sea about these three *chiao* of the body. The various ideas regarding these *san-chiao* cannot be calculated on the fingers by nipping the thumb. Whether it has a body or not you see, according to them is uncertain. Why do they say that the *ching* of the ring finger is the *ching* of the *shou-shao-yang* three *chiao*. There is here the very utmost confusion. Later writers have disputed and given the lie to these statements. The mistake goes back to its origin; when the source is wrong all else proceeding from it is wrong. I have always had a strong inclination for correcting errors but never having seen the viscera I got quite angry with myself. How could I bring out a work and myself never had seen the viscera. To produce such a book under such circumstances would have been foolish and like a man dreaming. If the doctors do not understand the viscera, they are like the blind groping their way along the street, so that no matter with what intelligence and diligence the medical art may be practised, what avails it? For ten years I have been daily engaged in correcting these errors and there has not been one single day that the subject has not occupied my thoughts. In the second year of the reign of Kia Ching (1798) I was thirty years old. Early in the 4th moon I was at Lan-chow (潞州), at a place called *Tao-ti-chen* (稻地鎮), east of Peking when an epidemic of measles and severe dysentery was raging fiercely among children. Of nine or ten who took ill at least eight or nine died. The poor people wrapped up the bodies in mats and buried them quite superficially, according to the custom of the place in order that the dogs might tear them and eat them, with the idea that subsequent births might be spared to them. I went out daily and examined these dead bodies in the public burying place and saw daily over 100, and daily I rode past on horseback. At first from the bad odours of the place I held my nose but afterwards on account of the mistakes made by the ancients because they had not seen the viscera, I did not any longer think of the foetid odours but every morning went to the burial place and closely examined the viscera of the children, many of which I found exposed. The

dogs left chiefly the intestines and stomach but very few hearts and livers, so I examined first this and then that. In ten I found about three complete and for ten consecutive days I examined them. I thus saw about thirty perfect bodies and in this way I came to know and compared the various parts with the ancient drawings and found they did not agree. The number and position of the viscera did not at all coincide. There was one thing I failed to understand fully and that was the very thin partition called the diaphragm. I failed to see whether it was above or below the heart, whether even or inclined. It was thin and torn. In the 4th year of Kia King 1800, and the 6th moon I happened to be in *Feng-tien-fu* (奉天府) and had an opportunity of investigating this point. A woman 26 years of age was mad and had killed her husband and her father-in-law. She was tried and condemned and afterwards taken outside of the West Gate to be cut into 10,000 pieces. (The west of the provincial cities is invariably selected for executions because it is in the direction of the Western Heaven or Paradise of the Buddhists). I followed hoping to have my anatomical curiosity satisfied. I thought it was a splendid opportunity for examining the viscera. But upon reflexion I bethought myself that the culprit being a woman, it would be highly delicate and therefore inconvenient, when suddenly as I passed the executioner tore out the heart, liver and lungs before my very eyes and which I therefore saw plainly and this tallied in every respect with what I had formerly seen. At Peking in the reign of Kia King, in the year of the cycle *Keng-shên* (庚申) there was a man found guilty of killing his mother. He lived outside of the Hata Gate (哈達門) south of the bridge. I was allowed to visit the place and follow the prisoner. On arriving at the scene, although I saw the viscera, the diaphragm was unfortunately torn. In the 8th year of Tao Kwang 1828, the 5th moon and the 14th day there was a man to suffer *ling-chih* (凌遲) (the punishment of being cut into ten thousand pieces) and when I got to the place I could not get to the front to see the viscera. In the 9th year of the same reign 1829, the 12th moon and 13th day, in the evening, in the Anting Gate St. (安定門) in the *Pan-chang-rh lane* (板廠胡同) at the house of Mr. Hêng (恒宅) I was invited to attend one in the family who was ill. In the course of conversation we got on to the subject of the diaphragm. I said I had been examining this point for forty years and had not yet succeeded in investigating it thoroughly. Among those present during the conversation was one *Heng Ching-kung* (恒敬公) who had been an officer in Hami (哈密) and was in charge of soldiers leading them to Kashgar and had seen many executed and knew all about the midriff most minutely. I rejoiced when I heard this and questioned him carefully about it and seeing how interested I was he told me all most readily. I have been examining the viscera for 42 years now and this is the first opportunity I have had of hearing accurately about them, and

consequently I have been able to draw my diagrams. My idea is to publish them for the benefit of succeeding generations so that all may know this matter of the viscera. I fear that people succeeding me will not themselves examine the viscera; they will say that I have controverted the statements of the ancients and they will not be able to decide (which is right). They will condemn me for not agreeing with the ancients. But if I do not on this account publish my work, medical learners will go on for centuries perpetuating these errors of the ancients. I have thought of Hwang Ti (黃帝) who feared that the people would suffer from disease. We have the writers of the *Su-wên* (素問) and *Ling-shu*, but if they knew for certain, they could teach the people, but if what they knew was groundless, they should have further investigated the matters. Why if they themselves were ignorant, did they presume to teach others, and in this way injuring all who come after them? Afterwards the men of *O'hin* and *Zueh* (秦越) made the book *Nanching* (3rd century B. C.) to explain the obscurity of the *Lu-wên* and *Ling-shu*. In the Ming dynasty in the early part of the 16th century *Chang Shih-hsien* (張世賢) published his work illustrated by diagrams and commentaries; he weighed the heart, liver and lungs, determining the weight of each and the length of the intestines, the capacity of the stomach, the number of *tow* and *sheng* (pints and gills) it can contain; his language looks very like the truth but really he had not seen the viscera; his statements are without proof, and were made with the intention of deceiving; he has in consequence obtained an empty reputation, and posterity reaps the disadvantage. If a man steal another's wealth, he is designated a thief; if he steal another's reputation is he not also a thief? For more than a thousand years it is not certain that there has been even one who knew these statements of the ancients to be errors. I have had these figures cut according to my ideas, not with the view of deciding that the ancients were wrong, neither that posterity may know me, and I don't care whether posterity blackguards me or not in consequence. My only desire is that the medical faculty should see the illustrations and then their minds will be clear in regard to the matter and their eyes when they see them will understand at a glance and they will know how to treat disease intelligently and will not resemble the ancients, following the cart rest. (In front a cart behind the rest), and their patients will not suffer injury from the ignorance of the faculty. This is what I earnestly look for. I hope for people who will understand that it was no easy matter for me to put out this book and will think of the condition of my heart in these circumstances. So much for the preface of the author.

To understand the viscera and their structure it is first necessary to know inspiration, expiration and the alimentary canal. The ancients called the part behind the tongue the *horo* (喉) larynx because it *waits* upon the inspiration and expiration of the air. The *how* comes from the *how* (候) of waiting.

This is the upper mouth of the lung vessel (trachea). Behind the larynx is the *yen* (咽) or gullet so called from the *yen* (嚥) of swallowing. By the gullet the food enters the stomach and so forms the upper mouth of the stomach vessels (*wei-kwan* 胃管). The *yen* (gullet) receives the food; the *how* (larynx) the air. For the last 4000 years this has been most surely believed. The book *Ling-shu* asserts this and no one has dared to correct or challenge the statement. All understand that what is swallowed enters the stomach but there is a serious misunderstanding about the larynx and inspiration and expiration, arising out of a want of knowledge and examination that the large faces of the two lobes of the lungs are turned to the back or spine; that above there are four apices or peaks which are directed to the chest and that below there is a small piece which also looks to the chest; that the lung vessel below divides into two branches (the right and left trachea) which enter the two lobes of the lungs; that each branch divides again into nine middle bifurcations and each of these again into nine little branches and these again into still more minute branches; that at the end of these minute divisions there are no openings; that in appearance they resemble the *chi-lin* (麒麟), a certain vegetable; that the outer skin (pleura) of the lungs has also no openings. Inside, the lungs contain light white froth. Below the lungs are no openings whatever, so the 24 holes of the ancients have no existence. The ancients said that in inspiration the lungs were filled and that in expiration they were empty. At present I need not minutely controvert this mistake. In inspiration the abdomen is enlarged and not the lungs; in expiration the abdomen becomes small and not the lungs. Inspiration, expiration, the expectoration of phlegm mucus, saliva and such like have nothing to do with the lungs.

Behind the lung vessel (trachea), in front of the stomach vessel (the cesophagus), on the right and left hollow spaces are the two roots of the air vessel, in appearance like tendons, the upper mouth is situated below the (*hwei-yen* 會厭) (epiglottis). On the left is the air door (*chi-mēn* 氣門), on the right the right air door, and these are the vessels from which proceed the phlegm, mucus, saliva, etc.

The ancients considered cough, asthma, hooping cough as lung diseases, because they came from the chest. In treating these diseases which were owing to external causes, they used diaphoretics and so cured the malady; in treating the warm phlegm, they administered cool remedies and cured the disease; with inside inflammation, they used purgatives; in weakness of the air they prescribed tonics; if the blood got obstructed, they used remedies to disperse it and seeing all these methods successful, they were naturally elated and left books on the subject stating that these were diseases of the lungs. In this way this belief became established; but the ancients were ignorant of

the fact that two air doors, a right and left, descend on each side half way down on the front of the lung vessel where they unite to form one trunk, like two branches uniting to form one stem, like a tendon, it proceeds downwards and enters the heart and again about the size of a writing pencil, emerging from the heart it turns to the left and proceeds to the back of the heart. On the left side of the lung vessel it passes the lungs and enters in front of the spine and proceeds downwards to the coccyx (the caudal extremity.) This is the *wei-tsung* vessel (胃總管) (the all defending vessel), popularly called the *yao* (腰) (lumbar) vessel. Within the abdomen there are two vessels, like tendons, the upper goes to the *c'hi-fu* (氣府) (air residence); *c'hi-fu* = to the great omentum or caul or cock's comb oil because it resembles the *han-ying* (鵝冠花) flower, so called from the cock's comb. The upper vessel here described may be the gastro-epiploic artery, coming from the coeliac axis or probably the superior mesenteric artery. The *c'hi-fu* covers and protects the small intestines. The small intestines lie horizontally in the *c'hi-fu*. Outside the small intestines and inside the *c'hi-fu* the original or constitutional air of man is stored and preserved. The original air is fire and this fire is the original air. This fire is the vital root of man's life. The food enters the stomach and small intestines and is dissolved by this original air. When this original air is sufficient digestion is easily performed and *vice versa* difficult. The above relates to the upper abdominal vessel. The lower or descending vessel on the other hand is connected probably with the male spermatic road and the female uterus. I took great pains to accurately observe this latter vessel. I was unable to satisfy myself that I understood it at all well, so I still remain in doubt but I hope some medical scholars who come after me, if they find a good opportunity will with diligence investigate this point and so fill up here my deficiency. This lower vessel is either the inferior mesenteric artery or spermatic arteries which rise from the aorta below the renal arteries.

From the *wei-tsung* vessel at the back of the heart are two vessels, like a tendon in size, which go to the two shoulders (the subclavian arteries); opposite the lumbar region there are also two vessels which enter the two kidneys (the renal arteries. Below the lumbar region are two vessels which go to the haunch (the iliac arteries.) Above the lumbar region immediately opposite the middle of the spine there are eleven short vessels* which connect with the back bone. This is the road the air and lymph juices take. If the air be sufficient the fire increases and the juices become thick; the thick is called phlegm (痰). If the air is weak the heat is diminished and it cannot boil the juices which therefore remain thin and watery and are called thin or

* These are without doubt the intercostal arteries, branches of the descending aorta. They are usually ten in number on each side. In the diagram they leave the vessel between the subclavian to the renal arteries. If the superior intercostal were not a branch of the subclavian, our author's number would be correct.

imperfect phlegm (yin 飲). Inside the vessel it is borne up by the air, passes upwards, crosses the heart in front of the lung vessel and in the middle of the air vessel and obtains egress by the right and left air door. The phlegm, juices, saliva, etc., are therefore matters belonging to the root air vessels, i.e., the carotids of our author. The ancients were therefore undoubtedly wrong in asserting that these things belonged to and issue from the lungs because they did not know that in front of the lung vessel there are air vessels which unite. They knew that the phlegm, etc., came from the chest, and so supposed they proceeded from the lungs, never having seen any true diagrams of the viscera nor having personally examined them. Whether we regard the function of the hand grasping things, the feet walking, the head turning, the body rotating, going forwards or backwards, all depend upon this air. When we inspire the air we fill the *c'hi-fu* (air residence), when the *c'hi-fu* is full the abdomen enlarges. In expiration on the other hand the *c'hi-fu* becomes empty, and the abdomen consequently becomes small, therefore the *wei-tsung* vessel (abdominal aorta) is an air vessel and contains no blood. If there were blood in the *c'hi-fu* it would find exit with the air in expiration and there would of necessity be hæmoptysis and discoloured phlegm; and if the blood proceeded downwards we should have bloody stools and hæmaturia. The *wei-tsung* vessel connects in front with a tendon-like vessel. This is the *jung-tsung* (榮總管) vessel, the veins of our author, a blood vessel containing blood and in length like the *wei-tsung* vessel. The blood in this vessel nourishes the *hsieh-fu* (血府) (blood receptacle.) The blood in this vessel flows into the *hsieh-fu*, which is below the chest and forms one piece of the *k'o-moh* or diaphragm, in thickness like paper but very strong. Its front length is on a line with the concavity of the mouth of the heart (the hollow below the breast bone) and goes from the two sides of the ribs to the upper part of the lumbar region straight but inclined, in front high, behind low; the base is like a pond in the earth, inside it stores blood which is dissolved from the delicate juices. This is the blood residence. The juices will be discussed when we come to speak of the juice door of the stomach. I before spoke of the epiglottis as the white piece behind the tongue which covers the right and left air doors and the door of the larynx.

The organ that receives what is swallowed in birds is called *su* (嗑), in quadrupeds *tu* (肚), in man *wei* (胃). The ancients pictured the stomach with the upper mouth above and called it *pên mên* (賁門) and the lower mouth as the *yen mên* (幽門). They spoke therefore of two mouths or doors, an upper and a lower but they did not know that the stomach has three doors. They drew it vertically, whereas it is not only horizontal but it is placed in a flat position with one side up; the *pen-mên* is directed to the back, the base towards the abdomen, the lower mouth *yen-mên* is also at the upper part on

the right side and is directed to the spine. About an inch to the left of the *yen-mên* there is another door called the *chin-mên* (津門) juice above the *chin* door is the *chin-kwan* (津管). This is the road by which the delicate juice and watery juice comes out of the stomach, but it is difficult to investigate this matter of the juice vessel because above it there is the *tsung-ti* (總才) pancreas* which covers it. The *tsung-ti* is popularly called *i-tse* (胰子). The body of the *tsung-ti* is on the right of the *pen-mên* and left of the *yen-mên*, and completely covers the *chin-mên*. Below the *tsung-ti* and connected with the *c'hi-fu* in front are the small intestines; behind it the *c'hi-fu* connects with the large intestines; above the stomach it connects with the liver and the liver connects with the spine. These are all situated below the diaphragm and the *tsung-ti* connects with the body of the stomach, liver, small and large intestines. Food enters the stomach; the chyme flows first out of the *chin-mên* and enters the *chin-kwan* and outside an inch or more this vessel divides into three divisions, the delicate chyle enters the marrow residence (*sui-fu* 髓府) and forms marrow; the thicker sort goes by the upper branch and along with the blood enters the *hsieh-fu* and is converted into blood, the watery juice goes by the lower division and from the centre of the liver passes over to the spleen. In the centre of the spleen there is a vessel which resembles a *ling-lung* (玲瓏) and is called *lung-kwan* (瓏管), a vessel resembling a gem with interspaces, the whole in the form of a dragon. The watery portion in this vessel divides into two sides and enters the outgoing water road, which road resembles a fish net, *ü-wang* (魚網), and is popularly called *wang-yen* (網油). The water percolates through the water road and enters the bladder and becomes urine. This part is indeed difficult to investigate. In the second year of Kia Ching 1798, when I investigated the viscera there were found bells full of water and some without water, and as I could not examine this point fully, so I cannot speak of it with certainty. Sometime afterwards I happened to be attending some patients with diseases of a very chronic character, who died; some of them drank much water, some little and some none at all, so that afterwards there was water still in the abdomen and although according to my earlier investigations of the outgoing water road I seemed to have reason on my side, yet I cannot definitely say it is so. Afterwards I compared it with animals and on killing them after they had drunk water, the bells of the *wang-yen* contained water, and if for three or four days they were not fed they had no water bells and so I came to the conclusion that water issued out of the water way. I have said above that food and water enter the stomach;

* The Chinese medical works do not acknowledge the existence of the pancreas as a viscus and on account of its absence our European physicians in their translations have taken the term (總才).

(By the way is not 甜肉 Sweet Flesh used by the modern medical translator, even as 網油 was the ancient medical term? the literal rendering here (thick oil) is somewhat obscure, yet we take it that these characters represented the pancreas itself irrespective of conveying any very distinctive meaning).—(ED.)

the coarse parts of the food remain in the stomach, the chyle and watery juice flows out of the *chin-mě'n*; the opening would allow the juice to pass and also watery rice, and it is in this way that the *chin-mě'n*, although it is as large as a tendon, the body of the stomach at this place is very thick and compresses the opening all round so that water can pass but not food. Inside the stomach about a line elsewhere said to be an inch to the left of the *chin-mě'n* there is a tubercle, of the size of a date called *cho-shih* (遮食). Its function is to obstruct the food until the juices have run out and afterwards the dry food is dissolved and enters the small intestines and becomes fæces. But how do the small intestines dissolve the food and form fæces? It is because outside the small bowels there is the *c'hi-fu* which surrounds and embraces them and outside the bowels and inside the *c'hi-fu* there is stored up the primordial air which is a food dissolver, after which it enters the large intestines and goes out by the seat *anus* (肛門).

(To be continued).

ADVICE GRATIS.

By A. W. DOUTHWAITE, M.D.

In *The Medical Missionary Record*, New York, March 1893, appeared an "editorial" on the need of advice to medical missionaries designated for work in heathen lands. Emphasis was laid on the need of counsel as to medical "outfit," as missionaries "often grope in the dark on the subject, and after getting to the field find that they have brought many things they did not need, and *vice versâ*."

This, however, is by no means the most important side of the question, for a man may bring out the finest outfit of drugs and instruments which money can procure, and yet "often grope in the dark" when called upon to put his outfit into use in the battle against disease, and in the performance of operations with which he is familiar in name only. Before a man undertakes the arduous duties of a medical missionary in China, it is well that he should know what will be required of him, and to see to it that he is fully qualified for the service.

(I say nothing here about *spiritual* qualifications, taking it for granted that no society would send out a man who had not given evidence of spiritual fitness for mission work, and that no man would volunteer for such work unless satisfied that such was the will of God concerning him).

The opinion obtains pretty generally at home that for a man of high professional attainments to give himself to mission work is a waste of talent,

but in the providence of God many such have been "thrust forth into the harvest field" and have found full scope for the exercise of all their powers. In fact it is just such men that are needed in this country, and only such can hope to be really successful medical missionaries. "Inferior" men may pass in the professional crowd at home, where help of the best kind is obtainable at a moment's notice, but place such men in isolated positions, cut off from all help, as many of our brethren in China are, and what will they accomplish?

Medical missionaries located in the ports, or in the greater centres of missionary activity are highly favoured in comparison with their brethren in the interior, for they can readily obtain supplies, and have seldom any difficulty in getting whatever advice or assistance they need. But most of these posts are already occupied, and the men who join our ranks in the future must pass on to the interior, to begin work in new centres. They may be located—as some already are—in far off inland cities many weeks journey from the nearest port. They have to acquire a difficult language, train their own assistants, and when they begin work they will often be called upon to perform the most difficult operations single-handed, or, what may be still worse, with unreliable helpers, when "treating" the most complicated cases they will have to rely entirely on their own knowledge and skill, which will often be severely tested, and in dealing with cases among their fellow-missionaries they will probably have to act as nurses as well as doctors.

Far be it from me to discourage any young man or woman who may be looking forward to medical work among the heathen as their service for Christ, I consider it the noblest and most god-like work to which they could devote their lives, and it is to prevent their becoming subsequently discouraged that *I would urge them on no account to enter the mission field with merely the experience gained in a medical school.* Two years spent in past-graduate practice and in attendance at the clinics of the specialists who abound in the great cities of Europe and America, will enable a man to test himself, and show him the weak points of his education which need strengthening ere he strikes out on an independent and unaided course. In addition to this, I would advise every young medical missionary to work for six months with one or more of the older men on the field—if it can be so arranged—that he may profit from their experience before beginning to work out his own.

Medical Outfit.

Unless there is something substantial to be gained by bringing out a supply of drugs, etc. I think it advisable to leave them at home, until the missionary has given at least a year to the study of the language of the people among whom he is to labour. If he has his *armamentarium* with him he

will hardly be able to resist the temptation to practice, and the importunity of those about him will add to the difficulty.

But should he decide on bringing his medical outfit with him, he need be under no uncertainty as to choice of supplies, for whatever drugs and instruments he has been accustomed to use at home he will find equally useful in China.

His *surgical* outfit should be as complete as his means will allow, for he can never foretell when his instruments may be called into requisition.

A list of the diseases most commonly met with in our dispensaries will enable intending missionaries to decide for themselves what drugs to bring out. I give the names in the order of frequency as noted in my Dispensary Register :—

Diseases of the Organs of Digestion—

Acid Dyspepsia, Worms (chiefly *Ascaris Lumbricoides*), Diarrhœa, Dysentery, Constipation.

Diseases of the Skin—

Itch, Ulcers, Boils, Eczema, Lichen, Carbuncle, Leprosy, Lupus.

Diseases of the Organs of Respiration—

Chronic Bronchitis, Asthma, Laryngitis, Phthisis.

Diseases of the Eye—

Conjunctivitis, Ulcer of Cornea, Granular Lids, Trichiasis, Entropion, Blepharitis, Pterygium, Ophthalmia, Cataract.

Diseases of the Urino-genital Organ—

Leucorrhœa, Amenorrhœa, Menorrhagia, Gonorrhœa, Chancre, Nephritis.

Diseases of the Nervous System—

Anæsthesia, Neuralgia, Epilepsy, Paralysis.

Fevers—

Typhus, Typhoid, Malarial ; remittent and intermittent.

General Diseases—

Rheumatism, Syphilis, Anæmia, etc.

In a large country like China the prevailing diseases will vary considerably in different provinces. In one district diseases of the eye would preponderate, while in another malarial fever would head the list. For this reason, as well as for that already given, it is advisable for a new arrival to spend some time in the place to which he is designated ere he procures his supply of drugs, as he would have an opportunity of considering the nature and probable extent of his future practice.

Local Resources.

Drugs of all kinds can be bought of the European druggists in Hong-kong and Shanghai at an advance of about 50 % on the English wholesale

prices, and good Spirits of Wine, 60° O. P. can be obtained from the Hong-kong Sugar Refinery, at 80 cents a gallon, in quantities of not less than 36 gallons.

Native whiskey, suitable for making the weaker tinctures, can be had anywhere in the empire, and by careful re-distillation it can be raised to the strength of Rectified Spirit.

Chinese drugs are, with few exceptions, so freely adulterated, and often so dirty, as to be unusable.

Those I have found reliable are: *Aconite, *Alum, Arsenic, Borax, Capsicum, Cardamon, Cassia Bark, Castor Oil, Croton Oil, Cinnamon, Galanga,¹ Gall's *Sulphate of Iron, Carbonate of Lead, Mercury, Mustard, Nux Vomica, *Oil of Tea-seed (substitute for Olive Oil), Opium, *Rhubarb, *Resin, Stramonium, Sulphur and *Wax.

These are of fairly good quality, but with the exception of those marked *, I find it cheaper to get them from England.

In many parts of Inland China bottles suitable for holding medicine are unknown, hence it is well to provide drugs in the form of powders, pills or tabloids rather than solutions or tincture.

¹ The root of *Alpinia galanga* or *A. officinarum*—it is stimulant and aromatic.—[Ed.]

THE TREATMENT OF LIVER ABSCESS.

By NEIL MACLEOD, M.D., *Edin.*

In the *British Medical Journal* of 26th December, 1891, I published a paper entitled "A Contribution to the Treatment of Hepatic Abscess, with Cases," containing an account of a simple appliance which had been found useful in operating on these abscesses. Further experience having justified what was then said of it and having suggested something additional in the way of improvement, a further reference to the subject, in a journal like this read chiefly by medical men who are sure to meet with such cases in their work, does not seem to me amiss.

Fortunately most of these abscesses are associated with adhesions, in most of which if they are single, any method of treatment will succeed if it supplies aseptic, free drainage. Occasionally difficulties arise which may cause much anxiety and even risk to life if we are not prepared to deal with them. Given a case of liver abscess in which no signs or symptoms of perihepatitis are or have been present and therefore there are probably no adhesions between the organ and the body wall, how are these adhesions best to be secured? The points that have to be faced are these: pus is flowing from an

aspirator trochar indicating the position of the abscess; the liver is moving up and down with every breath; it will tend to change position with every change of position of the body; vomiting may occur before the patient recovers consciousness and perhaps for some time after, violent movement of the liver being the result. The liver and wall surfaces are in apposition so long as neither air nor fluid can intervene. If an incision be made down to the liver as some propose, air will enter. The proposition to stitch the liver to the side has only to be tried to demonstrate its futility—even if the stitches could be tightened without cutting through the liver substance—the movements of the body, of deep respiration or of vomiting would part them. While this procedure is being carried out, the aspirator trochar is still sticking in the liver moving up and down, an incision has been made down to the liver surface and it is to be presumed that it is the edge of an incision in the liver that is to be stitched to the wall. Meantime pus is welling through the liver incision, and how is this incision to be maintained opposite that in the wall. On the fresh, still, dead body I found it impracticable to tighten the stitches satisfactorily.

Whatever method of operation be adopted, to be successful it must produce a local peritonitis and some of the abscess contents will probably find their way between the liver and the wall in the neighbourhood of the drainage track. If adhesions in that region be the only result of this process, it will be a beneficial one. If the pus finds free and easy exit through the tube that is used, it is the less likely to force its way into the peritoneum. A drainage tube therefore of large calibre, that cannot collapse or kink is the most desirable. A metal tube best supplies these requirements, besides affording a bigger calibre than a rubber tube of the same external diameter, at the same time making a better anchor for restraining the liver movements. Oval instead of round, it will be more suitable for insertion between ribs when the opening has to be made in that quarter, and the ease with which it can be rapidly introduced by means of the guide supplied with the apparatus will be appreciated by those who have had trouble in introducing and keeping in position rubber drainage tubes in these cases. These considerations are by no means fanciful but have been suggested by difficulties met with in treatment as may be seen on consulting the original paper. Since the date of its publication four other cases have been dealt with, but instead of the forceps recommended for the purpose of dilating the opening, in three of these a straight dilator was employed, made on the principle of Otis' urethral dilator but with points free, in size and shape like that of the ordinary fistula forceps. With this instrument, dilatation of the trochar track to the exact size of the drainage tube is rapid, easy and certain, and by limiting the amount of the dilatation in this way no more damage is done to the surrounding tissue than is necessary. This instrument passes easily along the director

groove into the abscess cavity, and its use is less likely to give rise to hæmorrhage than incision with a knife.

Where adhesions are believed to be absent, withdrawal of the aspirator trochar from the abscess may lead to the escape of pus into the abdominal cavity and it may not be possible to re-enter the abscess by the same route. Here it would be safer to leave the aspirator trochar in position and introduce the larger one alongside of it, only withdrawing the former after the opening is dilated and pus flowing freely.

For the benefit of those who may not have had an opportunity of seeing the paper in which the description of the apparatus referred to first appeared, the following account of it may be useful: 1. A trochar and canula, the latter 5 inches long and $\frac{1}{8}$ inch in diameter. 2. A probe 11 inches long and grooved one half of its length as a director and fitting the canula. 3. Four nickel-plated drainage tubes, 4, $3\frac{1}{4}$, $2\frac{1}{2}$ and $1\frac{3}{4}$ inches in length respectively, oval in calibre, largest diameter $\frac{1}{8}$ and smallest $\frac{1}{16}$ of an inch, each tube having two oval lateral openings at one end for drainage and two small openings at the other to admit of the passage of a safety pin as guard. 4. Another tube called the guiding tube, $\frac{1}{16}$ of an inch longer than the longest of the drainage tubes and accurately fitting its interior, furnished at one end with a flange at right angles to its length, and tapering to a cone at the other end where it is open enough to allow the passage of the grooved probe. 5. The dilator before referred to. These with an ordinary knitting needle, a knife and any aspirator with a trochar large enough to admit the knitting needle, complete the number of instruments necessary for the operation which I am in the habit of performing as follows: Instruments, skin, etc., being rendered aseptic, the aspirating trochar and canula are passed, preferably at a point chosen where dulness is absolute and where there may have been stitch-like pain felt or friction heard. If pus be found on aspiration, the knitting needle then introduced through the canula into the abscess tilted in various directions and measurements made of how far the needle can be passed in these directions, will determine if the point of exploration be fairly opposite the centre of the cavity, failing which, another point is chosen from the data thus afforded and the process repeated. When a satisfactory point is thus obtained, the larger trochar and canula are entered thereat and the trochar is next replaced by the director, and the canula then withdrawn. A single vertical incision about an inch in length, through superficial and deep structures, is then made, and the dilator next passed down the groove into the abscess, its blades opened and then withdrawn. Through the opening thus made, the drainage tube with the guiding tube in its interior is slipped into the abscess, threaded on the director, which is then withdrawn along with the guiding tube, and a safety pin passed through the holes in the end of the drainage

tube as a guard. After the pus has ceased to flow or does so but slowly, a dressing is applied. At each dressing the director probe can be passed into the abscess to ascertain the degree of contraction, and used as a guide for slipping in a fresh tube, which will thus enter the cavity each time with certainty and without pain.

MEDICAL NOTES FOR NON-MEDICAL READERS.

No. 6. Cholera. (First Paper).

BY SYDNEY R. HODGE, M.R.C.S., L.R.C.P. (*Lon.*)

True Asiatic Cholera is a not infrequent visitor to China, and when once it gains a footing becomes epidemic with frightful rapidity. In truth one wonders not at its occurrence, but at the comparative fewness of its visits. Sporadic cases may arise at any time, and there are few more anxious situations for a lonely missionary to be placed in than to have to do his best for a companion seized with Cholera.

But what do we mean by the term Cholera? In this paper it will be used as indicating true Asiatic Cholera, a disease "characterized by violent vomiting and purging, with rice-water evacuations, cramps, prostration, collapse and other striking symptoms and tending to run a rapidly fatal course." But explaining what we mean by the term Cholera does not tell us what Cholera is and, alas! we cannot yet say that we do know. Our clinical knowledge of the disease is, by now, very full, and, within the last few years the cause of the disease has been placed almost beyond reasonable question. It is universally agreed that the symptoms of this dread disease depend upon a germ, the Cholera bacillus, which if it gains access to the human stomach will, under suitable conditions, rapidly multiply and produce a poison which is absorbed into the blood. We are learning more and more about this germ, its conditions of life, etc., and may fairly hope in the near future to be in a position to combat the enemy successfully; but the day has not yet arrived. Meanwhile we know enough to enable us to take such precautions that the danger of being attacked is reduced to a minimum or, if attacked, to stop the progress of the disease in its earliest manifestations.

These three things are important:—

1. A knowledge of how Cholera is propagated.
2. A knowledge of what precautions should be taken against it.
3. A strong conviction of the success and importance of *early* treatment and intelligent ideas as to what that treatment should be.

How is Cholera propagated?

We can say, almost positively, now that the poisonous germ resides in the vomit and bowel discharges of the sick, and that the disease can only be spread by contaminated water and certain kinds of foods conveying the living organism into the alimentary canal. In civilised communities the water and milk supply are the chief sources of danger, owing to bad drainage. In China both these dangers are intensified—the discharges of the sick, never disinfected, are allowed to percolate through the ground and thus contaminate all the surface wells; or to dry on the surface of the ground; or, if passed into a receptacle, are promptly distributed over the neighbouring vegetable gardens, to carry death to all who eat of the produce. Not only so, in one and the same pool one woman will be washing her rice or vegetables, a second will be washing the garments of a fatal case of Cholera, while your water coolie is filling his buckets with the water for your kongs. Linen and clothes of various sorts, stained by Cholera dejecta can carry the disease from place to place, as the germ can exist in a dry state on such garments ready to revive into fatal activity under suitable conditions. It has long been recognised that to handle or wash linen soiled by Cholera dejections is very dangerous, and in all the great Cholera epidemics the washerwomen have suffered heavily. As there is not a particle of evidence pointing to absorption of the poison by the skin, the probability is that by neglecting to disinfect their hands they are constantly, in various ways carrying the contagion to their mouths. The danger is a very real one for all who come in contact with the sick. We are further told by competent observers that during an epidemic of Cholera the poison frequently locates itself in particular towns, streets and houses. This is probably due to the fact that although thorough desiccations will kill the Cholera bacillus yet any degree of dryness short of this will preserve it in all its virulence. Such desiccation probably does occur in pure, fresh air and thus explains the correctness of the general belief that the disease is not usually thus propagated; but in the moist, unhealthy air of narrow streets, or in unventilated sick chambers the germ would increase and multiply.

All this shows us that Cholera is neither contagious nor infectious *as those terms are ordinarily understood*—and that, broadly speaking, intelligent precautions will carry most people untouched through an epidemic.

What those *precautions* should be is the next question for us to answer.

First and foremost we should never forget that God has given us one great safeguard which we should always endeavour to preserve unimpaired—and that is a *healthy stomach*. In these days of microscopical research, when

fresh bacilli, all eager to prey upon us, are being announced with unpleasant haste, it is a cause of profound thankfulness that these destructive germs require a suitable soil to grow in—how unpleasant the outlook would be, were it otherwise, I leave my readers to imagine. So it comes to pass that the normal gastric juice of a healthy stomach is quickly fatal to the Cholera bacillus, and adventurous investigators of vigorous digestion, have several times swallowed it with no serious consequences. It is of the utmost importance therefore that during a Cholera epidemic “not only should indigestible things in general be avoided but anything which particular individuals know, from their own experience, will produce such an effect upon them.” Next be careful that, as far as is possible, you protect yourself against swallowing the germ. All water should be boiled thoroughly for fifteen minutes before use, simple filtration is not sufficient—if you then pass it through your Maignen’s filter it will become aerated, and pleasant to drink, in the process. See that your filter is not foul; the best of filters will fail you if you do not take the trouble to clean it. Fresh milk is always a source of infection and needs careful attention. Like water milk should be boiled for fifteen minutes, and consumed *as soon as boiled*. This last injunction is important, for experiments tend to show that should such boiled milk again become contaminated the germ will multiply much more rapidly than in unboiled milk. See that your cooking utensils and cutlery are washed in pure boiled water, and I should advise warm or hot water for washing and bathing in, not because the skin absorbs the contagion, but because sponges and other things can get infected and easily carry the poison to the mouth; besides, using hot water is the easiest and safest way of making sure that the water is comparatively pure. Avoid all salads and green stuffs (for reasons already stated) and also the skins of fruits. Remove all decaying animal and vegetable matters from around your dwellings. Avoid fatigue but take plenty of gentle exercise; look to the thorough ventilation of your rooms, especially your sleeping rooms. Keep the skin active by proper clothing, and avoid chill—be sure and wear your abdominal belt at night, so that, should you be restless and kick the clothes off, the abdomen may not get chilled. If to all these precautions you add a calm and even temperament, a mind kept in perfect peace, you will most probably pass safely through the epidemic. It is well to remind anxious mothers that “infants are said to enjoy a most marked immunity from Cholera, and many instances are on record of women who, while suckling their infants, were attacked with cholera and the infants remained unaffected.” (*Indian Medical Gazette*.)

Should any person in your house be attacked with Cholera, then further precautions are necessary to prevent the other members of the family becoming infected.

All those handling the sick or dead "should be scrupulously careful to disinfect their hands, and soiled clothing *at once*, and especially before eating or touching articles of food, drinking or culinary vessels." In fact it is safest to disinfect the hands after each contact of them with the patient, but I suppose most people would think this faddish and unnecessary. "Under no circumstances should the attendant, or any one else, eat in the same room with the sick," and although the observance of this precaution may, at times, entail a little inconvenience on those nursing, yet it is highly important not to neglect it. The vomit and bowel dejections must be most scrupulously and promptly attended to. It seems to me that in China, especially in the country, the safest thing to do is to carry them out at once and burn both the discharges and everything that they have fouled, and then bury the ashes deeply. This should be done immediately, for Cholera stools which are but slightly virulent when freshly passed become very rapidly so by keeping. When it is not possible to do this then the best way to proceed is as follows: "The dejecta and the vomited matter should be passed into a vessel containing a quart or more of a strong solution of carbolic acid 1 in 20; or of Jeye's fluid or of Izal 1 in 50, and immediately after the evacuation a sufficient amount of the disinfectant should be added to make the whole quantity equal to the bulk of the evacuated material: the whole should then be gently stirred, and afterwards allowed to stand for twenty minutes, when it should be removed and emptied into a pit containing *unslaked* lime and be immediately covered by a quantity of the same material." If this is impossible, the mixture should be allowed to stand for two hours, and then buried *deeply* in the earth. An important point to bear in mind is that all vessels, whether native or otherwise, used for receiving the discharges must be *highly glazed*—as unglazed ware will absorb, and gradually get saturated with the discharges. All such vessels should be broken and burnt when finished with. Similarly, although it may entail the loss of some expensive material, by far the safest thing is to *burn* all bedding and soiled linen; for one can never depend upon any disinfection by washing, and thorough desiccation in a hot air oven (the only reliable process) is impracticable. When a patient dies the body should be wrapped in a cloth dipped in one of the disinfectants already mentioned and buried in a *deep* grave. The room the patient occupied and every part of the home should be thoroughly disinfected, walls and furniture scrubbed and washed with strong disinfectant and all wall-papers removed. The fumes of burning sulphur form one of the most effectual ways of disinfecting a room. All that is necessary is to stand an ordinary native coal brazier upon a tin stand in the centre of the room, and then, having shut up all windows and plastered up every crack with gummed paper, not forgetting the chimney, throw on the top of the coal a couple of

pounds of native sulphur. Shut the door, close up the key hole and leave the room closed for twenty-four hours, and then open every door and window to the fresh air.

“Convalescent patients should remain separated from the rest of the household for ten or fourteen days, dating from the commencement of the attack, then well-wash in a disinfectant bath and put on clean clothes which cannot possibly contain any of the infectious material.”

(To be continued.)



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The Cholera epidemic of 1892, which raged throughout Europe with such fatal virulence, has necessarily been of great and absorbing interest. Among the many who have instructed us thereon may certainly be mentioned the name of Mr. Ernest Hart, the gifted editor of the *British Medical Journal*, extracts from whose address, delivered before the Congress of the British Institute of Public Health, Edinburgh, we have now the pleasure of publishing elsewhere for the benefit of those of our readers in China who possibly may not see that valuable publication. And *à propos* of that interest which is so universally manifested, and which we in the East must needs have our share, is, the continuation of Dr. Hodge's admirable series of articles in which Cholera most aptly comes to the fore in our present number. Thus in the light of all this it is we deem a logical sequence that we, too, should briefly touch upon some of the writings and experiences of the past year, and for our purpose of review select the first volume of the *Annual of the Universal Medical Sciences* for 1893, which treats of the prophylaxis and treatment of Cholera. We there gather that Heyes, of Hamburg, has brought forward the researches made by him at Hamburg during the Cholera epidemic. The only remedy which appeared to have a happy effect on the disease was intravenous injection. The sterilized liquid was brought to the barracks in large balloons, from which the irrigator was filled. To avoid infection the tubes of the apparatus were filled with gauze filters. This method was very successful. The solution used contained 90 grs. of sea salt per thousand, and sometimes Heyes added $1\frac{3}{4}$ or $1\frac{1}{2}$ drachms of alcohol per quart. The choice of the vein is unimportant. Nevertheless, when the injection is repeated (which has been done as many as eight times), it must, as far as possible, be made in another member. The sole medicament of which systematic use was made at Hamburg was calomel, administered in varying doses up to $7\frac{1}{2}$ grains. Heyes prescribed it in doses of from $1\frac{1}{2}$ to 3 grains, until the stool had taken a greenish hue and good effects were obtained. The greater number of other drugs failed, or gave but very imperfect results. Volovski communicates the treatment used successfully by him during the Cholera epidemic of 1872, which was especially directed against the emesis. The patients were given a warm bath, at a temperature

as high as could be borne, never under 99.5° F. and a bag full of ice was simultaneously placed on the head. The vomiting ceased while the patients were in the bath, the minimum duration of which was half an hour; the patients willingly remained longer, if cracked ice were given them to swallow. A few minutes after the bath, 1½ grains of calomel and 30 grains of castor oil, with wine and brandy, were administered, being then tolerated. On coming out of the bath the patients were rubbed, dried and a large sinapism, prepared in advance, was placed on the abdomen, the sides, and on the epigastrium, up to the middle of the sternum, being kept in place by a bandage. During the whole time of its action the vomiting was found to cease. Volovski declares that if the patient support the sinapism, without complaining, during half an hour, the progress is unfavorable, if he endure it an hour or more a fatal issue is inevitable. On the contrary if the patient quickly begins to complain of pain in the abdomen, and if it be necessary to reason with him in order to induce him to keep it on for fifteen or twenty minutes, one may hope for a cure; if yellow stools occur afterward, recovery is certain. Lesage of Paris has instituted, at the Hôpital St. Antoine, the following treatment against Cholera: Every Cholera patient is plunged into a warm bath for twenty minutes or half an hour, and the bath is sprinkled with mustard during the last few minutes. If there be no reaction a transfusion is made, at 100.4° F. with one quart of artificial serum. If the Cholera is very rapid and severe, the treatment fails. In cases, in which the disease is not so rapid in progress, the patient is systematically submitted to an absolute diet and to the following prescriptions. (a) Solution of lactic acid, ½ ounce per 2 quarts per diem. (b) Tea with rum, ice, and Seltzer Water. (c) In cases of intense and repeated vomiting, the stomach is irrigated with boiled water and filled with 1 pint to 1 quart of lactic acid solution. The warm bath at 104° F. is repeated every two or three hours. The principal results of this practice are: (1) Elevation of the rectal temperature from 99.0° to 103.6° F. according to the case. (2) Increase of the activity of the circulation. (3) The appearance of diaphoresis. (4) The diminution of cramps. (e) If the patient again become algid, in spite of the baths, he must submit to another transfusion, several times repeated. (f) The emission of urine is provoked by filling the bladder with warm boric acid; this often gives good results. (g) As adjuvants to this treatment, caffeine, ether by subcutaneous injection, oxygen inhalations, cupping and wrapping in wadding may be employed, according to indications. (h) The appetite quickly returns by the use of lactic acid. Lesage advises for the first diet coffee, broth and bread. With many patients, milk causes a return of digestive troubles. With this treatment a Cholera reaction has seldom been observed. Winternitz, of Vienna, is a partisan to hydrotherapy as a prophylactic, neurasthenic and

preservative means against chills, as well as a remedy for the so-called premonitory diarrhœa. By this method he has succeeded in curing a large number of patients already suffering from cramp in the calves, vomiting, cold extremities, and discolored stools. He practices friction of the skin with a piece of linen soaked in the coldest water; then a sitz-bath, at a temperature of 44.4° to 59° F., during fifteen or thirty minutes. The parts of the body not in contact with the cold water are enveloped in woollen coverings, and the abdomen is energetically rubbed. Siredey, of Paris, gave his patients lactic acid, elixir of paregoric, champagne, injection of ether and caffeine, and oxygen inhalations. He considers transfusion the best means of fighting a case of grave Cholera, but also advises repeated hypodermatic injections of artificial serum. These injections are made deeply into the thighs or into the buttocks 5 to 10 ounces of liquid being injected at a time, and this repeated four or five times in twenty-four hours. The method was employed with fifty-four patients, all in a grave state. There were sixteen recoveries without transfusion. This treatment has the advantage that it can be tried from the beginning, transfusion being reserved for the end. Neumann and Garillard, of Paris, both argue in favor of subcutaneous injections of salt water in Cholera. The quantity of liquid injected is from 3½ to 10 ounces for children, and 1 to 1½ quarts for adults. The liquid contains, per quart of water, 11 grs. of chloride of sodium, with or without the addition of carbonate of sodium, in the proportion of 01 per cent.; 1 per cent. of absolute alcohol may be added. The temperature of the solution should be from 100.4° to 107.6° F. According to Neumann's method the tubes and liquid are sterilized by boiling caoutchouc. The cannula, armed with a fairly-large trocar is plunged, parallel, with the surface of the integuments, into the subcutaneous cellular tissue, by preference in the region of the flanks. It is pushed slowly in as the liquid flows out. The swelling caused by the penetration of the liquid under the skin is energetically rubbed away with the fingers. When the cannula is taken away the puncture wound is covered with a small piece of diachylon plaster. Desprez, of St. Quentin, proposes a treatment by chloroform. 1. To destroy the comma bacilli in the digestive canal, and to neutralize their secretions. 2. To calm the painful cramps of the stomach, which render that organ incapable of supporting either medicine or drink. 3. To actively stimulate the functions of the skin, so close connected with those of the digestive canal, and of the kidneys. 4. When absorption is possible, to introduce into the economy the principles capable of re-establishing, as far as may be, the normal composition of the blood; medicaments that will render it fluid and available for circulation. With this end in view, he employs the following medicaments, in the form of a potion :—

R. Chloroform	15 grains.
Alcohol	2 drachms.
Ammonia Acetate	2½ "
Water	3½ ounces.
Syrup of hydrochlorate of morphine	1½ "

Mix. Dose : Tablespoonful every half hour until the symptoms subside.

As a preventive, the author employs chloroform-water, sweetened to taste. Delpuech, of Paris, made no intra-venous injections in his cases, and in the actual epidemic the statistics of the services where no injections were made were better than the others. In the absence of specific treatment, he treated the symptoms. Irrigation of the stomach alone succeeded in stopping vomiting. Against diarrhœa, opium and lactic acid were rather useless or insufficient. Irrigation with $\frac{1}{2}$ or $\frac{3}{4}$ drachm of creasote appeared to be more efficacious. Against algidity and cyanosis, hot baths, injection of caffeine and ether had no effect. Injections of sulphate of strychnine, up to $\frac{1}{16}$ grain in twenty-four hours, alone raised the pulse, or caused it to re-appear after suppression. Dujardin Beaumetz, of Paris, gives the following *résumé* of the first aid to be given to Cholera patients :—

1. To combat the diarrhœa, by administering three tablespoonfuls of the following lemonade, every half hour :—

R Lactic Acid	2½ drachms.
Syrup of Sugar	3 ounces.
Tincture of orange	30 minims.
Poured into 1 quart of water. M.	

2. To arrest the vomitings cracked ice or drinks containing carbonic acid, and, every hour, 20 drops of paregoric.

3. To warm the patient, warm alcoholic drinks, strong coffee with brandy, tea with rum grog; dry energetic friction, warm coverings, hot water bottles or hot bricks around the patient.



NOTICES OF BOOKS.

Woman's Work in the Far East. Presbyterian Mission Press, Shanghai.

Thank God there is work for women for the Lord, thank God there is work for her in the Far East. Woman's heart beats for woman in her trials and aspirations, and East or West the favored woman of education and Christian principle must work to uplift the sister who is trammelled by custom, or bound down by ignorance. In the current number of *Woman's Work* one is perhaps most deeply interested in the work along the line of Temperance and of Foot-binding. The one touching a hoary old custom, which it would seem would bring down all Chinese social life with a crash in its fall; the other only a weakling yet, but the child of a father whose giant strength we know so well maiming and crushing the very flower of youth and vigor in Christian lands. One does not know which makes one feel most helpless, fearful, hand-wringing helplessness, thinking of the generations of past and present suffering little girls, crippled and being crippled, or of the generations to come of Chinese men, who spared by opium shall fall under the liquor curse, crippled too. When to China's women, debased by cruelty and ignorance, is added China's men besotted by opium and strong drink, what can save the nation from decay and death? We rejoice to know that though the enemy has already come in like a flood the spirit of the Lord is lifting up a standard against him, using even such feeble means to noble ends, as the Temperance and Foot-binding societies.

Another interesting article is that which gives a bright, happy answer to the question so often asked about the Chinese, and which

was first propounded by Satan about Job—"Does Job serve God for naught?" Thus writes Mrs. Arthur Smith:—

"Our poor Christian women have little money for the Master's treasury, but such as they have they bring, helping us out admirably with their *time*. One young bride gave us eleven days at her busy New Year time. The brightest of our dear Shantung girls spared twenty days from the making of her wedding trousseau to valuable teaching. Another bride gave twenty-one days. Another Christian, with fewer home cares, gave twenty-four days, but the sweet-hearted wife of our gate-keeper carried off the palm with her eighty-four days of faithful labor. Those who could carry on their work from their own homes received no food. Not one of these women received a cash in money. Three hundred and ten days of unpaid labor for the Church by the women and girls of our P'ang-chuang Church! They were given by poor country women and girls, with no ready money and with hard lives already crowded overfull with work."

There are some bright notes of Hospital experiences. It is hard to say which is funnier; the woman who wouldn't swallow and so conquered husband and sons, tacitly saying, in the doctor's words, "I have been too much for these men for many a day; what do you suppose you can do?" or what the doctor did. "As she lay apparently exhausted, but with a furtive eye on me, I prepared another dose and poured aromatic spirits of ammonia upon my handkerchief. Pouring the medicine into her mouth I suddenly clapped the handkerchief to her nose. In her surprise and gasp for breath she swallowed; keeping her attention by

bathing her face, rubbing her head and holding her chin up she forgot to struggle, until it was too late."

There is testimony to the value of Christian Endeavour Societies in stimulating and directing the lay work of the Churches, and a suggestive article on feminine ways of increasing home influence. May God bless His work in the home and the Church. Among the triumphs of the religion of Jesus is the conversion and consistent walk of one of that hardest class to reach, the Chinese soldiery.

The perusal of this last number of *Woman's Work* makes us feel like echoing Mrs. Smith's opening sentence—"The passing peeps into missionary experiences and lives to be found in this magazine always leaves one hungry for more, and often to bewail one's ignorance of the setting of some attractive picture."

'G.'

We are in receipt of some sample copies of calendars for 1894—two from the Religious Tract and Book Society of Kiukiang, and one from the Central China Religious Tract Society.

In regard to the former we feel like indulging in a little kindly criticism. The object of these calendars, in addition to their *prima facie* purpose, we take to be the dissemination of the leading principles of Christianity and general information upon other important subjects. Do these two calendars from Kiukiang fulfil this purpose? We think not. No uninstructed man could gather from their perusal any adequate notion of the teaching of the Christian Church, and no information at all in regard to other subjects is given. Upon one we have the picture and the story of Christ walking upon the sea, and that is absolutely all; upon the other a brief article on the printing press, the parable of Dives and Lazarus, the story of Belshazzar's feast, Daniel in the lion's den and a few verses from the N. T.: but

no short succinct statement of the Christian faith is to be found.

The calendar from the Central Religious Tract Society will certainly be pleasing to the Chinaman's eye, as some of the illustrations are of objects familiar to him. In this calendar also, an attempt is made to give some account of Christianity, and the other paragraphs contain information of value—as for instance how to deal with cholera and opium poisoning.

We think great stress should be laid upon the importance of care being taken in the preparation of these calendars. They easily find a wide circulation, and if they contain careful compact statements of truths and facts, they may act as a powerful missionary agency.

F. L. H. P.

The Medical Missionaries' Anglo-Chinese Diary for 1894. Shanghai: American Presbyterian Mission Press.

This diary is a distinct advance on last year, both with regard to its appearance and usefulness. There are suggestions we deem we could make as to extending that usefulness, but we doubt whether they would equally commend themselves to all—our requirements necessarily being hardly the same. By way of comment we must add that the interleaving with blotting paper would be a great convenience, though, we admit, materially increasing the size of this diary, already numbering some 312 pages. Then as to the advantage to be derived from the extending of some of the departments, whilst curtailing others must remain a moot point. We are aware that owing to circumstances the publishers were unable to carry out some valuable suggestions. Still, we must congratulate our friends at the well known 'Mission Press' on so good a diary, at so fair a price, as 60 cents. The following Contents Table will give a better idea of the Diary than we can:—

Diary with Dates of Chinese Festivals, etc., Register of Dispensary Patients (from January to December), Vaccination Regis-

ter, Obstetric Register, Patients visited at their Homes, List of Subscriptions, Drugs, etc., sold, Drugs, Instruments, etc., wanted, Table of Doses, Obstetrical Table, British Postal Rates, United States Postal Rates, Shanghai Local Postal Rates, Japanese Postal Rates, Memoranda.

The Missionaries' Anglo-Chinese Diary for 1894.

From the same indefatigable Mission Press have we the pleasure of acknowledging a copy of the above Diary. It occurs to us on looking through it that its thoroughness is mainly attributable to the fact that its editors are more 'at home' with our clerical colleague's requirements. This diary of 316 pages, somewhat exceeding its companion diary, is another handsome well printed book—it is excellently arranged and replete with every convenience for a systematized and profitable arrangement for our daily life and work. The subjoined 'Table of Contents' render any other remarks unnecessary:—

Diary with Dates of Chinese Festivals, etc., Stations Visited, Names, etc., of Enquirers and Candidates for Baptism, Enquirers Examined, Baptisms, Marriages, Funerals, Suspended, Excommunicated, Restored to Communion, Discourses Delivered, Days spent in Itinerating; Distances Travelled; Cost of Itineration, Incidental Expenses of Itineration, School Examinations, Books Sold, etc., Cash Account (from January to December), Cash Summary for 1894, British Postal Rates, United States Postal Rates, Shanghai Local Postal Rates, Japanese Postal Rates, Memoranda.

Outlines of Obstetrics. A Syllabus of Lectures delivered at the Long Island College Hospital. By CHARLES JEWETT, A.M., M.D. and edited by HAROLD F. JEWETT, M.D. W. B. SAUNDERS, 925 Walnut Street, 1894. Price \$2.00 (gold.)

To this eminent Philadelphia firm are we indebted for this work. Sufficient warranty of its excellence with the name of

Professor CHARLES JEWETT to the fore. The main idea and indeed aim of this syllabus is to help the student in securing a classified knowledge of the outlines of his subject, which it is believed, should be the first step in the pursuit of any branch of learning. This being accomplished, his progress will no longer be difficult. And so, upon a well ordered frame work of general facts and principles further acquisitions classify themselves, and a complete and systematic knowledge of the subject becomes a matter of comparatively easy growth.

The hope is entertained that the work in question may be of some value to the practitioner as a convenient hand-book for reference. We venture to believe it will be of very considerable value, and one we have pleasure in recommending to the profession in China.

Annual of the Universal Medical Sciences.

A yearly report of the progress of the general sanitary sciences throughout the world. Edited by CHARLES E. SAJOURS, M.D. and seventy associate Editors, assisted by over two hundred Corresponding Editors, Collaborators and Correspondents. Illustrated with chromolithographs engravings and maps. In five volumes. 1893. The F. A. DAVIS Company, Publishers, Philadelphia, New York, Chicago and London.

To say that this magnificent work, an epitome of the medical progress throughout the world for the year now past, is thoroughly up to that high standard which its predecessor unquestionably attained, is only a just meed of praise. It is a standard work for all practical purposes to date, and yet so condensed as to come within the scope of these five handsome volumes.

The fund of information obtained from the winnowing and garnering of the gist of thousands of medical journals, books, monographs, theses, etc., is incalculable. In short, apart from the universal favour with which this Annual has been received, it is admirably fitted for the library of the medical missionary.

Chinese Calendar for 1894. British and Foreign Bible Society, Shanghai.

This calendar is excellently printed on thin white paper and its general appearance is very attractive. And one special feature of which is the Daily Text.

It has a Map of the Eastern Hemisphere, showing in red characters the position of Judea. Also four engravings in Chinese

style, two representing the Broad and Narrow Roads, the others illustrating the story of the Prodigal Son. It also gives some specimens of other languages than Chinese, in which the Bible Society has published Scriptures.

Orders for the same can be directed to the B. and F. Bible Society, 13 Kiukiang Road, Shanghai.



HOSPITAL REPORTS.

FIRST ANNUAL REPORT OF THE CHUNGKING
HOSPITAL, M. E. CHURCH, S.

The Report of this Hospital is interesting as being "the only well-equipped institution of the kind in West China" up to the date of writing. Dr. McCartney speaks most cheerfully of his work. In opening his Report he says: "We know that God has set His seal upon the medical work, and what we have not been enabled to accomplish in the past will come in the future."

There seems to be a very complete equipment for good work, as seen from the description of the Hospital plan.

"The buildings consist of two brick pavilions each 65 by 26 feet (Chinese); they each contain besides one public ward, two private rooms, a medicine room and clothes press."

"An operating room with instrument room attached in a separate building, is well suited to the use that is made of it.

Also a two-storied building containing dining room, kitchen, bath room and room for cast off clothing of patients, as well as rooms for help, and students above.

We have besides these a two-storied native building containing twelve wards, and a bath room."

The results of increased facilities is seen in advance in the work itself.

The work both medical and surgical has been much more satisfactory since we have removed from our temporary Chinese buildings into our foreign hospital.

We are always rejoiced, in the interests of civilization, when we see such statements as the following (we do love sheets and pillow cases in a hospital.)

"We had been told that the Chinese would not take a bath or keep themselves clean, that they would not wear our clean cotton shirts, that they preferred their hard beds to our spring mattress hospital beds; we fear that those who gave this report had never tried the experiment, and we are glad to say that our experiment has been a grand success."

Dr. McCartney gives a hint of what contact with foreigners will do in removing prejudice, and perhaps, what the habit of submitting to authority, inculcated by Romanism.

"We find the Catholic natives more intelligent and more willing to submit to an operation than the heathen."

Among the midwifery cases, we find a case of triplets. Three hundred and forty-four different surgical operations have been performed.

In regard to evangelistic work, while regretting that the seed sown in the dispensary department had not yet borne fruit, the doctor rejoices in some hopeful conversions in the in-service of the Hospital.

The results during the year have been good, one of the first who claimed to have been brought to us through the influence of the medical work was an old widow by the name of LIEU. She was the attendant upon a patient we had in the city, and who had had a severe operation, when the patient recovered the old lady came to inquire about the doctrine she had heard about and after a time was taken on probation; she has proved faithful.

CHONG.—Orphan boy, necrosis of the bones entering into formations of knee joint,

joint resected, a beautiful recovery, after this he desired to enter the school and was accepted.

In a few months on his profession of faith he was taken on probation and at present is in full connection.

He has made a bright Christian and a good student.

LIEU.—A boy brought to us much in the same way as the last mentioned and with the same disease. The resection was not a success and the leg was amputated. He made a rapid recovery, was taken into the school and from there into the Church. He is a bright and promising boy and has proved himself worthy of all we have done for him.

Mrs. WEI.—In the hospital for suppurating glands of the neck, became greatly interested in the truth while there, left a believer, and attends Sunday service regularly walking from a distant part of the city each Sunday.

We regard her as very hopeful and she is reported by the Chinese as being very warm-hearted.

One other has been taken on probation on profession of faith from the opium refuge, as well as two others from the hospital who have been faithful thus far and we trust truly owned of God.

During the cholera last summer we had an opium patient die who had become a believer and in his last moments prayed to his Saviour to save him and we trust his prayer was heard.

As to the result among opium smokers, in whom all missionaries take so deep an interest, the following testimony is encouraging:—

We have seen during the past year and a half, two brought into the Church, as well as others having been reclaimed and reinstated by the means of this work.

We find that about 60 per cent. return to the pipe, and that the other 40 per cent. have been greatly benefited, physically and every other way. 'G.'

ST. LUKE'S HOSPITAL FOR CHINESE, HONGKEW,
SHANGHAI.

Of this old established Hospital there is the usual succinct report, for the year 1893.

We make a few excerpts, setting forth the work done, and the prospects for the future.

The following table gives a summary of the work done during the year:—

Native males—Intern.,	501.	Extern.,	18,420
Foreign " " "	19.	" "	403
The grand total being			19,343

Purchase of a New Lot.

On the 30th of June we purchased the lot on the corner of the Seward and Nanzing Roads, opposite to the Hospital, thus securing room for the new wards when they are needed. Taels 1,500 were borrowed at 7 per cent. per annum, to meet the full payment on this lot, and the Hospital is now in debt to that amount.

The Report of the Hospital for Women and Children, in connection with St. Luke's Hospital we give almost verbatim, Dr. Haslep says:—

"Our Report this year would be in figures almost a repetition of [that of last year. About the same number of out-patients were treated. There was an increase in number of in-patients and visits." "We feel that much has been gained. This is shown in the class of patients. It is much better as a whole than before. Also in an increase of confidence in the purely medical work. This is shown by their willingness to become in-patients and to remain until well, even though they must submit to a long treatment and do not for some time see results. Often those who would willingly have a surgical operation performed, where they know what will be done, and they or their friends can see what is done, unless the returns are quick, lose faith in medical treatment; waiting being truly the hardest work of all. On these lines we have felt improvement, and it has been decided. Our greatest need has been more room. We

have been unable to receive all the patients who desired to enter, also to increase our number of nurses or students, owing to our limited accommodation. We expect this year to have an addition to our present quarters. We can but hope in this coming year that our work will continue in the same line of progress."

· G. ·



MEDICAL PROGRESS.

THE TREATMENT OF HEPATIC COLIC.

GRASSET is a firm believer in the administration of olive oil in the treatment of acute and subacute hepatic colic. In the acute form the duty of the physician is to relieve the pain. For this purpose may be employed (1) a hot bath, which shall last from half an hour to an hour and a half; (2) he may administer every hour or every half hour a teaspoonful of the following mixture:—

R. Chloroform-water, gr. v.
Syrup of orange-flowers, „ v.

In cases where there is vomiting, he advises hypodermic injection of morphine, and by the mouth administers frozen milk or frozen bouillon. When the crisis of the pain is most violent, if the stomach be tolerant, he advises ingestion of small quantities of olive oil every quarter of an hour until half a pint has been taken. The oil may be rendered aromatic by the use of the oil of peppermint. An injection also should be given composed of two drachms of infusion of senna and half an ounce of the sulphate of sodium.

In the treatment of the subacute form, which is more prolonged, of course, he advises (1) ingestion every morning [of a wineglassful of aromatized olive oil; (2) every night a hot bath; and (3) every day four doses of from 4 to 10 drops of tincture of boldo; (4) morning and night he orders the administration of the following laxative pill:—

R. Extract of belladonna.
Euonymin.
Pulverized belladonna-leaves, of each,
gr. ss.

In some cases it is well to supplant the euonymin with podophyllin. (5) Every two hours he administers a glass of milk, and in addition adds to this two tablespoonfuls of Vichy water. In other cases where a laxative effect is desired, sulphate of magnesia is useful.—*L'Union Médicale*, June 3, 1893.—*The Therapeutic Gazette*.

TREATMENT OF EPISTAXIS BY ANTIPYRIN.

Dr. GUENOT has frequently found a local application of antipyrin to be of great service in idiopathic epistaxis. He employs a solution of 1 in 5, but in mild cases 1 in 10 solution is strong enough. He directs the patient to pour a little into the hollow of the hand and to inhale it vigorously. In the case of young or intractable children a syringe would be necessary to fill the nostrils, which should be compressed for a moment to allow the antipyrin time to act.—*Lancet*, Aug. 19, 1893. *Indian Medical Chirurgical Review*.

For the treatment of ulcers by phosphoric acid, use a ten per cent. solution of pure phosphoric acid in distilled water. The ulcer is covered with a bit of lint dipped in this solution, and the dressing renewed three or four times a day. The patient for the first few minutes feels a slight burning sensation, but this soon passes, and, within twenty-four or thirty-six hours, the ulcer cleans and looks better. Inflammation or eczema of the surrounding parts disappears, and all pruritus ceases. The ulcer cicatrizes rapidly, and the cicatrix is firm and healthy.—H. P. NOTTAGE, M.D.
—*The Medical Missionary Record*.

MALARIAL HAEMATURIA.

For this dreaded disease our Southern physicians use *turpentine* with more success than any other drug. It is given in doses of 5-10 drops about every four hours, and the bowels are kept free with saline cathartics, opium being positively forbidden.—(*Ib.*)

QUININE AS AN APPLICATION TO WOUNDS.

Dr. ALFOLDI (*Pest. Med.-Chir. Press—N. Y. Med. Jour.*, May 6, 1893) is convinced that one per cent. solution of quinine sulphate is a more rapid detergent and cicatrizing in cases of infected wounds than either corrosive sublimate or iodoform. He states that wounds that are free from infection also heal with astonishing rapidity under the use of quinine application.

TREATMENT OF INFANTILE CONVULSIONS.

"M. JULES SIMON recommends the following line of treatment of infantile convulsions: 1. Empty the digestive tract by an enema and by tickling the fauces to promote vomiting. 2. If the attack continues, administer ether or chloroform on a handkerchief. 3. Administer by the mouth, or if necessary by enemata, repeated doses of the following mixture: Chloral hydrate, fifteen grains; bromide of potassium, fifteen grains; syrup of codeine, ten drops; tincture of musk, ten drops; tincture of aconite, ten drops; orange-flower water, three ounces and a half—this quantity to suffice for twenty-four hours. 4. When the attack is very grave, give a warm bath and apply a small blister to the back of the neck or the epigastrium, leaving it on for three hours. Antiseptic precautions should be observed and a poultice subsequently applied."—*Lancet.* (*Ib.*)

FOR TENDER FEET.

Tramps, either amateur or professional, who suffer from sore feet after an unusually

long walk, will experience great relief from soaking the feet once or twice a week in a half-pailful of hot water to which a piece of nitrate of potassium the size of a small walnut has been added.

VINEGAR FOR URTICARIA.

After trying many remedies in a severe case of urticaria, Mr. SWAIN found a vinegar lotion gave almost instant relief, and subsequent trials in other cases have been equally successful. One part of water to two parts of vinegar is the strength most suitable.—*British Medical Journal.*

EXTERNAL TREATMENT OF DIPHTHERIA.

In *L'Union Médicale* for June 3, 1893, SIMON, in a clinical article, announces his success in the external treatment of diphtheria. He employs to the area which is involved the following topical application:—

R. Salicylic acid, gr. xv.
Infusion of eucalyptus.
Glycerin, of each oz. iss.
Alcohol, enough to make a solution.

After this has been thoroughly applied to the affected area he paints the part with a solution of perchloride of iron and glycerin in equal parts. Along with this treatment he also institutes irrigation of the mouth and nasal cavities, using in each instance boric acid and water, or a 1 to 100 solution of carbolic acid and water. He also thinks it useful to employ the vapor of a decoction of eucalyptus leaves or atomization of thymol and water. Where there are fissures and cracks of the lips or gums, or if a pseudo-membranous inflammation has passed by, he obtains rapid healing through the use of the nitrate-of-silver stick applied daily lightly to the surface. If cutaneous inflammations follow diphtheritic inflammation, he employs tincture of iodine or an alkaline solution of iodoform.—*The Therapeutic Gazette.*

THE PERIOD OF INCUBATION OF THE INFECTIVE FEVERS.

From the report of the committee appointed by the Clinical Society of London to inquire into the incubation period of the various infective fevers, we extract the following :—

The incubation period of the various diseases is :—(i.) Diphtheria, 2 to 7 days; often 2 days. (ii.) Typhoid fever, 8 to 14 days; sometimes 23 days. (iii.) Influenza, 1 to 4 days. (iv.) Measles, 7 to 18 days; generally 14. (v.) Mumps, 2 to 3 weeks. (vi.) Rubella, 2 to 3 weeks. (vii.) Scarlet fever, 1 to 7 days; generally 2 to 4 days. (viii.) Small-pox, 9 to 15 days; generally 12 days.

As regards the period of infectiousness diphtheria was found to be infective during incubation, attack and convalescence. Scarlet fever is infectious until all desquamation ceases; small-pox also until all the scurf separates from the body.

HEADACHE POWDERS

Are becoming very numerous and quite popular. The majority of them have about the same composition, and depend for their effect on phenacetin combined with similar remedies. Dr. BARRETT says, in the *Medical World*, that he always uses the following compound :—

Phenacetin 5 to 10 grs.
Caffeine 1½ ,,

This is to be varied as required by circumstances. Dr. HARE in the *College and Clinical Record* adds to the above composition 10 grains of bromide of sodium. The Doctor varies the proportion of these ingredients to suit the case. It is much more satisfactory to write a prescription than to prescribe ready-made combinations under proprietary names.

TO PREVENT PITTING IN SMALL-POX.

Corrosive sublimated	} of each 1 gme. [15 grs.]
Opium extract...	
Alcohol	5 gme. [1½ fl. drs.]
Glycerin	60 gme. [1½ fl. oz.]

Paint frequently on the face and neck, so as to keep the parts constantly moist.

(The itching of the skin will disappear, and the pustules usually abort, it is claimed, on or about the fifth day.)—*A. M. S. Bulletin*.—*Pacific Medical Journal*.

A MILK DRESSING FOR BURNS.

The *Chemist and Druggist* states that one of its French contemporaries, the name of which is not given, favors the use of milk as a dressing for burns, to be applied by means of compresses. The dressing is to be renewed night and morning. Under this treatment the reduction of the size of large burns has been marked and speedy. In one instance an extensive burn on the leg, treated in this manner for three or four days, was reduced from five inches to an inch in width. In another instance a severe burn that had been rebellious under a treatment with olive oil and zinc oxide healed rapidly under the application of milk compresses. This suggestion may serve as a valuable one for country practitioners when their accustomed remedies for burns are not at command. (Cream is a common application in the N. W. Territories of Canada.)—(Ed.)

INCONTINENCE OF URINE.

Dr. G. H. R. DABBS (Shanklin) writes : I have lately succeeded in curing a most intractable case of this affliction by making the boy sleep on a cane-bottomed couch (with good large holes in the cane) with as little covering as he could, and dressed in flannel trousers and shirt *vice* nightshirt. The amelioration commenced at once, and has now lasted six months. I feel justified, therefore, in recommending this simple plan to others—and the doctors of others, which is what I really mean.—*British Medical Journal*.

HORSE-HAIR IN MINOR SURGERY.

In an interesting article lately appearing in the *Boston Medical and Surgical Journal* Dr. C. O. THOMPSON calls attention to the

above. He uses the following method in preparing the hair for use: "A bundle of carefully selected hair weighing from one to four drachms (the very fine and coarse hairs being discarded), is freed from dust as much as possible by shaking and combing. It is then washed in strong soap or soda solution, and when dry placed in a jar or bottle of the capacity of about one pint (a Mason fruit-jar answers the purpose admirably) which is then filled with benzine, the jar being agitated frequently. The treatment with benzine may be repeated several times; thus all fatty material is removed from the hair. It is next treated with a strong solution of bichloride of mercury, and finally immersed in bichloride of mercury solution, 1-1000. After this treatment the hair was found to be *absolutely* free from germ life.

If removed from the antiseptic solution it becomes stiff and wiry, and is not easily tied. It should, therefore, be kept in the solution until needed for use. A small bundle of hair can be folded and placed in antiseptic solution in a small vial, such as is carried in the ordinary medicine case, and is then ready for immediate use. Unlike catgut or silk, it does not swell when placed in aqueous solution, but, on the other hand, is rendered more suitable for use by its becoming more pliable, and its flexibility is retained so long as it is kept in a moist condition. It can be easily tied and holds a knot perfectly well. Its smoothness and uniformity of calibre, is such that it can be very easily passed through the eye of the needle, which is certainly a marked advantage over catgut or silk."

Apropos of the foregoing and of interest to us in China it may be recalled that should sutures not be at hand, we can always readily prepare a practically sterilized suture, by removing a few hairs from the tail of a horse and placing them in boiling water for from three to five minutes have them ready for use.

Dr. THOMPSON gives the following summary with regard to the advantages of horse-hair:—

- (1) Easily obtained and inexpensive.
- (2) Soft, pliable, elastic and holds a knot well.
- (3) Aseptic, non-absorbent and non-irritating.
- (4) Can be used with a very small needle, and makes no shoulder at the eye.
- (5) More easily removed than any other suture, without pain or injury to the tissues.
- (6) Can be used for drainage.

PERMANGANATE OF POTASH AN ANTIDOTE
TO SEVERAL ORGANIC POISONS.

ANTAL (*Pesth Med.-Chr. Presse*, No. 7, 1893) experimentally examined the properties of permanganate of potash as an antidote to certain organic poisonings and found that those animals to which muscarine, strychnine, colchicum, oleum sabinæ and oxalic acid had been administered, followed by two per cent. solution of permanganate recovered, whereas animals similarly poisoned but without resorting to the above-named antidote succumbed. The author therefore suggests its use when poisoning by one of the above substances has taken place in the human subject.—*B. M. J.*, May 13, 1893.

THE PROCLIVITY OF WOMEN TO CANCEROUS
DISEASE.

Dr. SNOW says that the number of women who apply at the Cancer Hospital is twice as great as that of the men, and this notwithstanding that the cases of cancer of the lip and tongue are almost all males. This excess of females is due to the prevalence of malignant disease of the uterus and mamma. He then asks why these organs should be so frequently attacked. His answer seems to be three-fold: First, these organs are rich in cell-elements. Second, they are frequently exposed to irritation. Third, their normal condition and nutrition are interfered with by cir-

cumstances which he considers are more or less directly the result of what is called civilized life. Of these he specially blames constipation, over-pressure at school, the abuse of tea, and tight-lacing.—*The Medical Record*, N. Y.

THE MEDICAL ASPECT OF DISEASED TEETH.

One of the distinguishing marks of advancing social position is the amount of care bestowed upon the teeth. The attention paid to personal cleanliness marks a general class only, the finer degrees of which are often determined by the especial care of the oral cavity. Aside from the æsthetic reasons for dental cleanliness, and the avoidance of unnecessary pain, which also is a mark of advancing civilization, our present knowledge of bacteriology offers the most cogent arguments for greater care of the teeth. Local caries of the jaw or empyema of the antrum of Highmore are, perhaps, the most serious result which most physicians have in mind in their daily routine. The more accurate searching for ultimate causes of disease has shown the widespread and often subtle influence which a neglected mouth may exert. HIPPLE calls attention to these various results in a recent number of the *New York Medical Journal*. He has found no less than forty fatal cases of pyæmia, acute and chronic, which were directly traceable to a carious tooth.

The anatomical paths of entrance for pathogenic organisms from the teeth are numerous and direct both to the general economy and locally to the brain. An interesting and unusual case was one fatal actinomycosis in which the autopsy revealed an actinomycotic cavern in the anterior portion of the superior lobe of the left lung, in which was an irregular calcareous body about the size of a No. 6 shot. On microscopic examination this proved to be a small fragment of dentine surrounded by phosphate and carbonate of lime, incorporated with which were numerous threads of

the ray fungus. There seemed to be no doubt that the fragment was the carrier of the infection.

He calls especial attention to the importance of buccal cleanliness in cases of gastric disturbance, and speaks of the almost entire futility of sterilizing articles of diet for patients in whose mouth chronic abscesses exist, or whose teeth are covered with tartar mixed with mucus and food in a state of decomposition.

The numerous nervous reflexes—ocular, aural and neuralgic—are easily explained but also easily not associated with their true cause. It is, however, the importance of bacterial infection which should be emphasized. As far back as 1802 Dr. RUSH wrote: "I cannot help thinking that our success in the treatment of all chronic diseases would be much promoted by directing our inquiries into the state of the teeth of sick people, and by advising their extraction in every case in which they are diseased. It is not necessary that they should be attended with pain to produce disease, for splinters, tumors, and other irritants often bring on disease and death when they give no pain and are unsuspected as the cause of them."—*The Boston Medical and Surgical Journal*.

THE EMERGENCY TREATMENT OF A TOOTHACHE.

In the *Medical Record* for November 11th Dr. JOHN E. WEAVER, of Rochester, writes to the following effect: Toothache, according to the books, is a matter of small consequence, but many a physician would rather meet a burglar at the door on a dark night than a call to cure a bad toothache of several days' continuance. A hypodermic injection of morphine only postpones the evil day, and usually the patient is respectfully referred to the dentist. The tooth should not be extracted while the jaw and gums are inflamed and the latter swollen, and it is the physician's duty to treat the

case until these conditions are removed. The author advises always keeping on hand a small phial containing a mixture of ten drops each of chloroform, glycerin, and a saturated solution of carbolic acid and a grain of morphine, also a small wad of absorbent cotton. If the aching tooth has a cavity or a decayed surface, a small pellet of cotton should be saturated with the mixture and put into the cavity or against the decayed surface, as the case may be. The cotton is not to be packed in, for it will increase the trouble, but the pellet should be small enough to enter without crowding. In most cases this will end the trouble. When the gums are swollen and tender they should be painted two or three times at intervals of two minutes with a four-per-cent. solution of cocaine. At this time of the year, the author remarks, the patient may have been eating a good deal of

fruit. If the tongue and the mucous membrane of the mouth are pale there is probably sour stomach, and the next day the toothache will return. Under such circumstances ten grains each of bismuth subcarbonate and phenacetine should be given at once before each of the three following meals, with a laxative if needed, and the eating of fruit should be stopped for a few days.—*New York Medical Journal*.

INFANTILE CONVULSIONS.

Dr. J. P. PRIESTLEY writing from Chicago to the *New York Medical Journal* says: "Apropos of the article on Infantile Convulsions by M. JULES SIMON, summarized in the *Journal* for October 28th, I would offer the hypodermic injection of five grains of chloral hydrate for an infant aged two years as a most gratifying mode of treatment in these trying cases."



NOTES AND ITEMS.

**A very Happy New Year to all
our friends.**

The following idea may possibly tend to comfort us if sorrowing from the loss of a little one. "The children we have on earth leave us, and have their own place in the world, but our little ones with God are always ours, they never change."

We have pleasure in acknowledging the receipt of 'The American Medical Temperance Quarterly,' the organ of the American Medical Temperance Association and published by the Modern Medicine Pub. Co., Baute Creek, Mich. Although the Journal is the organ of the Association aforesaid it has nothing to do with temperance sentiment, but proposes to discuss the question of alcohol upon a purely scientific basis. There is much that is recent in relation to this subject, and we wish the Association and its very interesting Journal every possible success.

Nitrate of silver stains are easily removed by painting the part with tincture of iodine and then washing in dilute Aqua Ammonia.

A PROTEST AGAINST THE OPIUM COMMISSION.

The British Indian Medical Association has presented a petition protesting against the opium commission appointed with a view to prevent the production of opium in India. They say that the ryots cultivating poppies are more contented and better off than those who cultivate food grains; that many provinces are dependent for their support upon this industry, as the land otherwise cultivated could not be made to

yield sufficient returns; that the opium is not used for intoxication; that the natives who do use the drug habitually are dependent upon some form of mild stimulant, owing to the swampy nature of much of the land they work in; that even used to excess the results are less harmful than those of alcohol, which would be the natural substitute for it, and the increased consumption of which would in all reason result in a greater proportion of crime; that the moral effect upon China would not be forthcoming, as the production of opium in China is already conducted on such a scale that to prohibit the export of opium to China would have but two results as regards China—the first, to give to the Chinese opium-growers the most complete protection against foreign competition, and the second, to force those opium-eaters who can afford to pay the higher price which Indian opium commands to consume the inferior product of native manufacturers; that the misery, distress and discontent, that would be caused all over the country by the prohibition of opium, would be rendered intolerable by the increased taxation, which would be necessary to enable the government of the country to be carried on after surrendering the opium revenue.

[When looking into the 'Personnel' of the Opium Commission here referred to, we were of opinion that Lord KIMBERLEY had made a most wise selection; that is, wise, if a selection of well known honourable men can be so termed; we are therefore somewhat surprised to learn that even 'The Sentinel' deems that it is not so. We fail to appreciate how it is possible that persistent scurrility can at any time serve any

pause, it appears to us only to antagonize those who otherwise would perchance give a courteous hearing. However harking back to our text, we do not think that the Opium Commission can possibly have any practical outcome, either with regard to the suppression of the growth of the poppy in India, or to the lessening of the opium habit in China. The question can neither resolve itself into one of sympathy, nor of practical politics. It is not only a question of grave fiscal policy of very great difficulty, but one in which the native of India will certainly have some very determining say. It must be recalled that the British Government have for some years past exercised a "discouraging" policy and that policy has within the past five years reduced the consumption of, and traffic in, opium. There is to our mind a deep significance in the action taken by the late Bombay Decennial *Missionary Conference* in this connection—(Ed.)

ATTRACTIVE CIGARETTE MATERIAL.

The *Medical Press* says that it has been discovered that all the used cotton-wool and lint of the Lariboisière Hospital in Paris has for years been systematically sold by the servants, as their perquisite, to the makers of cigarette-papers. The practice has been put a stop to.

We rather admire the naïveté of the last sentence.—(Ed.)

Much has been written with reference to the late Sir ANDREW CLARK. But one thought—and that Ruskin's, occurs to us in his connection, "Every noble life leaves the fibre of it interwoven forever in the work of the world." . . . Glancing through an 'old country' paper mention is made of "his system," the same by the way of the great Heidelberg physician, FRIEDERICH, now deceased, and one which in the long run will supersede all others—namely, few drugs, but a severe dieting of the patient. As the advice is somewhat applicable to the

East we quote: "It is absurd, for example, for a man who is an abnormally high liver, and who, in consequence, suffers with his liver, to expect a few bottles of medicine to cure him. Sir ANDREW CLARK would never attempt this miracle, but would lecture such a patient very severely on his intemperance, both in eating and drinking, solemnly warn him that it was bad habits which were killing him, and then in nine cases out of ten send him away with merely a note concerning the proper diet for him, and without any prescription for a drug. Sir ANDREW did this because he was an honest man, and he could do it, because, unlike most physicians, he himself practised the temperance in things pertaining to the table which he preached."

"There is a perfect furore all over China to learn the English language. The Emperor is studying, why shouldn't we? say the people."—*Home Paper*.—(!! Ed.)

The Medical Missionary Conference at Bombay appointed a committee to take into consideration the question of the publication of a Medical Missionary Journal (for India) with power to act.

A question frequently asked is: Are the majority of physicians and surgeons infidels? A Christian physician up in Minnesota decided to find out for himself. He sent out these three questions broadcast to the medical profession: 1. *Do you believe in the Christian religion?* 2. *Do you profess it?* 3. *Are you a church member?* He set forth the result, in part, in the *St. Louis Medical Brief*. At the time of writing he had heard from 33 states and territories, and the answers were still coming in. Out of 179 responses, 150 answered "yes" to all three questions and 13 answered "no" to all three. Nine answered "yes" to questions 1 and 2, and "no" to 3; seven answered "yes" to 1 and "no" to 2 and 3; and, strange to relate, two frankly answered

that they did belong to a church, but did not believe or profess the Christian religion. The total of those who put themselves on record as believers was 166, of whom 150 are church members. The infidels numbered 13. The general question is certainly answered in a convincing manner. The author of the article noted that each response from lady physicians contained three affirmations, and that whereas the believers gave simple answers "I do," or "yes," the infidels each took from three to five pages of paper to show their grounds of infidelity. Much of their argument, he adds, was covert sneers or personalities.—"*Mid-Continent.*"

THE JUBILEE.

The Shanghai celebration of its Jubilee passed enthusiastically. The oration by Rev. WILLIAM MUIRHEAD was very heartily welcomed, and received the highest encomiums from the press. If it fails to bear good fruit in regard to evils from which Shanghai suffers it will not be the fault of the speaker. Mr. HANBURY's gift of five thousand taels was very opportune. We need an institution for the deaf and dumb. Lunatics also require to be cared for. The blind ought to have more done for them than has been done yet. When these three needs are supplied in Shanghai it will be an improvement of very great advantage in this way. The Chinese know what our hospitals are, but they have not yet among them our institutions for lunatics, for the blind and for the deaf and dumb.—*The Messenger.*

[With every possible sympathy for the poor unfortunates here alluded to, and perhaps more especially for the blind, we cannot conceive how the care of lunatics should be considered to come within the scope of mission work in China, when there is so much that is *practical* to be accomplished, were means more plentiful. While we must necessarily respect the philanthropy whereon these schemes are based—we still

deem that missionaries have sufficient to accomplish in their well recognized branches of mission work, without wishing to embark on or even to endorse, such an utterly *im-politic* undertaking, as the care of Chinese lunatics.]—(Ed).

Over a couple of tons of ripe strawberries were gathered by some large growers in England, at the end of October. The fruit if somewhat small, was excellent in flavour, and is of course a second crop, the plants evidently not having exhausted their fructiferous properties, owing to the exceptionally dry summer.

CURIOSITIES IN CURES.

About thirteen years ago there was published in Philadelphia a book entitled "The Influence of the Blue Ray of the Sunlight and of the Blue Colour of the Sky in developing Animal and Vegetable Life, in arresting Disease, and in restoring Health in Acute and Chronic Disorders to Human and Domestic Animals." On the front page is this quotation: "If this be true, it upsets all theories." It treats of the electro-magnetic power of the sunlight transmitted through blue glass, and many successful experiments are related. A grapery, roofed in with blue and plain glass in *juxta* position produced in a shorter time than usual bunches of extraordinary magnitude and grapes of unusual size. A litter of pigs was separated into two parties; the heaviest and best-conditioned were put in an ordinary pen, while the smallest and lightest were placed under blue glass through which came the solar ray. After several months it was found that the last named were far in advance of the pigs heavier to begin with, but reared in the usual piggery. A bull calf, so puny and feeble at birth that small hopes were entertained for its survival, was placed under blue glass. In 24 hours it rose to its feet, walked about the pen, and was able to take some food. It began to

grow and its development was marvellous. By the same means a mule that had been deaf for ten years regained its hearing, while a canary that had lost its vocal powers had them restored. Proofs were given that quadrupeds could be developed in twelve months, which under ordinary conditions required five years. From quadrupeds the writer comes to the human family, and states that were we to introduce blue glass into our houses "the constitution of invalids would be invigorated, and the beneficial results, physically and mentally might become a marvel to mankind. Paralysis, neuralgia, rheumatism, and pains in the back, head and limbs had all been cured by patients submitting themselves to the benign influence of the blue sun-bath. No case was too hopeless—names and dates are given, and several testimonies come from medical men. Children of premature birth placed under blue glass quickly improved in health, size and vigour, and became perfect specimens of infantile development. A German scientist having experimented in animals, fishes, fowls, plants, vines and vegetables pronounces the discovery of incalculable value. Another distinguished scientific man said, "That the discovery of this extraordinary influence was destined to produce most important and beneficial results on the comfort and happiness of mankind throughout the civilized world."—*The Lady*.

MEDICINE AND SURGERY AMONG ANIMALS.

Animals get rid of their parasites by using dust, mud, clay, etc. Those suffering from fever restrict their diet, keep quiet, seek dark and airy places, drink water, and sometimes plunge into it. When a dog has lost its appetite, it eats that species of grass known as dog's grass, which acts as an emetic and a purgative. Cats also eat grass. Sheep and cows, when ill, seek out certain herbs. An animal suffering from chronic rheumatism always keeps, as far as possible, in the sun.

The warrior ants have regularly organized ambulances. Latrielle cut the antennæ of the ant, and other ants came and covered the wounded part with a transparent fluid secreted from their mouths. If a chimpanzee be wounded, it stops the bleeding by placing its hand on the wound, or dressing it with leaves and grass. When an animal has a wounded leg or arm hanging on, it completes the amputation by means of its teeth.

A dog, on being stung in the muzzle by a viper, was observed to plunge its head repeatedly for several days into running water. This animal eventually recovered. A sporting dog was run over by a carriage. During three weeks in winter it remained lying in a brook, where its food was taken to it. This animal recovered. A terrier hurt its right eye. It remained under a counter, avoiding light and heat, although it habitually kept close to the fire. It adopted a general treatment, rest, and abstinence from food. The local treatment consisted in licking the upper surface of the paw, which is applied to the wounded eye, again licking the paw when it became dry.

Animals suffering from traumatic fever treat themselves by the continued application of cold, which M. DELAUNAY considers to be more certain than any of the other methods. In view of these interesting facts, we are, he thinks, forced to admit that hygiene and therapeutics as practiced by animals may, in the interest of psychology, be studied with advantage.—*Farm Folks*.—*The Medical Age*.

The following prescription was given by a medical man early in the century: "Take a little of this 'ere and a little of that 'ere; put it in a jug before the fire, stir it up with your little finger, and take it when you are warm, cold, hot or feverish." A favourite recipe of his was composed of henbane, camomile, night-shade, dock leaves, heartsease, marshmallows, St. John's wort

and about a dozen other ingredients. When asked what was the use of so many different things, he answered, "Well if you are going to shoot a bird you use plenty of shot; some of them will be pretty sure to hit the case."—*The Lady.*

Since the condition of the blind in this world of vision is the saddest than can be imagined—for the deaf and the dumb can make communication to each other, and can see the pleasing exterior of earth—it is highly interesting to learn that a weekly paper is published every Wednesday in England in Braille type for the benefit of the blind. It is called the *Weekly Summary*, and contains a summary of the news of the week "parliamentary, general and musical." The expression has not been inadvertently quoted. There is something extremely pathetic in the single word "musical" in this connection, as all will know who have seen the patient rows of the blind sitting and listening to that world of sound which is their only artistic gift from the world that lies around them.

It is not generally known that the electric light, which has done so much of late years to brighten our streets and our houses, is in reality, a very old friend. The voltaic arc light was known to, and exhibited by, Sir HUMPHREY DAVY in 1805, while four years later, Albemarle Street, Piccadilly, was electrically lighted at the expense of the Royal Society. Thus we live and learn, and while we gleefully rub our hands and praise the inventor of to-day, our pride is humbled when we are told that our great grandfathers anticipated us by a century.

THOMAS HEAZLE PARKE.

The sudden death of Surgeon-Major PARKE, which occurred September 10th, has closed the career of a man of unusual strength and gentleness of character. Few men have accomplished such arduous and varied service or acquired at so early an age such world-wide and deserved reputation.

Upon his return from his African expedition he received the full honour due him at the hands of the general public and his friends. The British Government alone maintained a brutal inattention to his services. Although this was on a par with the usual contempt shown the medical profession in English military and army management, the slight was so studied and marked that PARKE felt it most keenly.

However a more lasting tribute than any army honor could have been, will remain for PARKE, in the words of STANLEY, written during the expedition, "His devotion was as perfect as human nature is capable of rendering."

PROFESSOR CHARCOT.

On the 16th of August died SEAN MARTIN CHARCOT, physician, philosopher, and scientist. He was one of the *grandes glories* of the French nation, and one of the princes of the medical profession. Though of a wide world reputation as a scientist he made one department particularly his own. In regard to diseases of the nervous system he was supreme, and may indeed be called the father of our knowledge of nervous diseases.

Within recent years CHARCOT largely devoted his attention to a study of those curious conditions now generally known as hypnotism. The subject is at once one of the most fascinating and one of the most difficult that has ever puzzled the brains of man. In one form or other it has been familiar from the earliest times, but chiefly as a convenient tool for the charlatan and the knave; and, in consequence, there are many good folks, both in the medical profession and out of it, who look askance upon the whole matter and on all who dabble therein. Prolonged and bitter controversies raged between the school of the Salpêtrière and its opponents, but all outside the medical profession will agree that it is highly desirable that the subject should be either finally discredited or established

on a scientific basis. This is what CHARCOT endeavored to do, and he would be a bold man who would venture to predict the limitations of "psychological therapeutics." In any case, we owe a debt of gratitude to the man who was fearless enough to risk his reputation, and boldly crossed the threshold of the mystery.

TO EXTERMINATE MOSQUITOES.

It is claimed that the castor-oil plant when cultivated as pot-plants and brought into the house several hours each day, will effectually drive out all the mosquitoes.—*The Texas Sanitarian*.

[It has ever been our aim to disseminate useful knowledge and we do not think it right that this delusion should be perpetuated in China. We have cultivated the *Ricinus Communis* on peculiarly scientific principles for the ends indicated, and are distinctly of opinion that the mosquito *thrives* on the juices of the plant in question, which renders it a most formidable *animal* to cope with. We do not think, there is anything that is really satisfactorily deadly, to any member of the *culicidæ* family, indeed we fail to see how there could be—for they start out in life in a way that no self-respecting larva could abide, swimming around, as if ashamed of themselves or of their progenitors, with their heads hanging down on the water and breathing through their tails. However, *apropos* of this, *The National Druggist* gives the following for rendering mosquito netting inflammable:—

"Make a solution of one part of ammonium sulphate to five parts of water and immerse the netting in the same. One pound of netting will require from twenty to twenty-four ounces of the solution to thoroughly saturate it. The material is entirely inoffensive, and the ease with which it is employed is not its least recommendation. After saturating the bar (or other material) with the liquid, it is necessary to pass a hot iron over the fabric to dry it and make it ready for use."—(Ed.)

TO BORE HOLES IN GLASS.

Break off a part of the tip of a three-cornered file and grind a triangular point upon it. Avoid heating it enough to injure the temper; then make your holes with it just as you would make holes in wood with an awl, using turpentine to moisten the bearings of the glass. The edges of the file can be sharpened with an oil stone.—*Scientific American*.

CAUSE FOR FEAR.

Dr. HENRY MARTYN CLARK, C. M. S. missionary at Amritsar, reports an interesting conversation with a friendly Hindu on the subject of Christian missions. "Do you mind telling me," said Dr. CLARK, "which of all our methods you fear the most?" "Why should I put weapons into the hands of the enemy?" replied the Hindu, "But I will tell you. We do not greatly fear your schools; we need not send our children. We do not fear your books; for we need not read them. We do not much fear your preaching; we need not listen. But we *dread your women*, and we *dread your doctors*; for your doctors are winning our hearts, and your women are winning our homes, and, when our hearts and our homes are won, what is there left us?"—*Church Missionary Gleaner*.

A SUPERIOR METHOD OF MAKING TEA.

The *Lyon Medical* for October 29th gives the substance of an article published in the *Répertoire de Pharmacie* for October 10th. The tea is to be powdered immediately before it is used, boiling water is to be poured upon it (water not too hard), and to be left in contact with it for from five to seven minutes. In this way the aroma is developed in a remarkable degree, the theine is completely extracted, and the resulting infusion contains but a minimum of tannin.

The value of negative information was well stated by a famous French savant, of whom a lady asked an apparently simple question in science. He replied: "Madame, I do not know." "Well, what is the use of all your scientific education if you cannot tell that?" said she. "Madame, to be able to say I do not know."

Received with thanks:—*Records of the Triennial Meeting of the Educational Association of China*, held at Shanghai, May 24th, 1893. American Presbyterian Mission Press, Shanghai. *Sixth Annual Report of the Society for the Diffusion of Christian and General Knowledge Among the Chinese*. For year ending October 31st, 1893. Shanghai: Noronha & Sons. *Report of the North-China Mission of the American Board of Commissioners for Foreign Missions*. For the year May 1892—April 1893. *Fourth Annual Meeting of the Christian Vernacular Society of Shanghai*. May 23, 1893. *The Annual Report of the British and Foreign Bible Society*. For the year ending December, 1892. American Presbyterian Mission Press. *The Church at Home and Abroad* (for review), No. 1334. Chesnut St., Philadelphia, Pa. *Tetra Ethyl Ammonium*. A new solvent for Uni Acid, discovered at the Edison Laboratory. By FREDK. PETERSON, M.D., etc. Reprinted from the New York Medical Journal for Sept. 16th, 1893. *Deformities of the Nasal Septum* and their influence in diseases of the ear and throat. By WM. SCHEPPEGRELL, A.M., M.D. Reprinted from the June 1893 No. of the New Orleans Medical and Surgical Journal.

All outstanding Association and Journal accounts should be at once forwarded to Dr. GILLISON, Hankow. The American Presbyterian Mission Press, Shanghai, have now charge of all accounts, commencing 1894.

THE BIBLE IN CHINESE.

The Right Rev. Bishop F. R. GRAVES writes thus to *The Churchman*:—

I wish to call the attention of your readers to a remarkable work which has been going on for some years, and of which probably very few of them have heard. I refer to the new translation of the Bible into Chinese which is being made by Bishop SCHERESCHEWSKY. The Bishop is well-known to the Church as the translator of the Old Testament into mandarin and of the Prayer Book into the classical style.

In 1881, to the great loss of the mission, he was stricken with paralysis and forced to leave China and resign his bishopric. His strength gradually came back to him, but he has never been able since to use a pen or walk without assistance. Under such circumstances any ordinary man would have succumbed and counted his work as done, but Bishop SCHERESCHEWSKY conceived the idea of retranslating the Bible.

In spite of difficulties which were very great, he has persevered for six years, working eight hours a day on his type-writer. So far he has completed the translation of the Old Testament and half of the New. This translation is in the classical style, and is made by direct translation from the Hebrew and Greek. He hopes besides to make an improved translation into mandarin.

When the work is finished he will put it into its final shape under the hand of a Chinese scribe, and it is his dearest wish to have it published. It was my great pleasure to see his work and talk with him about it not long ago. No one can see him at his work without being filled with admiration for an energy so untiring. It seemed to me that your readers would appreciate such patient heroism and be favorably disposed toward a literary undertaking which requires such ripe scholarship and so many years of unflagging devotion to a high aim.

The *Shanghai Mercury* of the 3rd inst. publishes an interesting account of the opening of the Naval Medical College at Tientsin. "The occasion is worthy of more

than passing notice, and will cause a. (claims to be, an honest preparation made from fresh beef, and one we recommend.

who have the progress of China at heart to devoutly wish that the undertaking may be a success." So say we, while congratulating our old friends Drs. Kin Tating and Chow and wishing them too, every possible success in their work.

There is in New Guinea the only known specimen of venomous bird—The Rpir h' Doot, or "Bird of Death." Persons bitten by the creature are seized by maddening pains, which rapidly extend to every part of the body. Loss of sight, convulsions and lock-jaw are symptoms which follow in rapid succession, and finally death.

We have much pleasure in acknowledging from the courteous manager of the Shanghai Dispensary several very excellently prepared compressed tabloids of various drugs. The quinine (Howard's sulphate) are made up into two-grain tabloids, they are readily soluble and a most convenient method of administering that very important drug—the dose is accurate and the trifling extra cost involved more than compensates for the great saving of time effected in dispensing.

The sulphur tabloids are admirably adapted for children so disguised are they with sugar and lemon. 'Dover's Powder' (five grs.) are very convenient—so indeed are all the tabloid preparations submitted for examination. The firms with whom the Shanghai Dispensary deal are a sufficient guarantee of the purity of the drugs employed, and Mr. CHANG'S reputation as a most energetic man of business and careful pharmacist render it unnecessary to enlarge on the advantages to be derived from the home preparation of these tabloids. The MEAT JUICE, *Syn.* MEAT ESSENCE to which our attention has been particularly directed—is a simple expressed beef juice with a preservative agent. We have tried it for some while past and believe it is all it

At the Church Congress recently held in England, the Rev. F. LAWRENCE, the indefatigable Secretary of England Burial Reform Society and Sanitary Association, in a sermon on behalf of these societies, preached during the Congress on the text "A sower went forth to sow" (Matth. xiii.) said that such as the sowing was such would the harvest be. From the seeds sown of diphtheria, consumption, and other diseases communicable by germs, the harvest of deaths in 1890 in England and Wales alone was nearly 70,000. Such seeds should be destroyed, and in their place the seeds sown of health, strength, and long life. But these could grow only in an environment of cleanliness, fresh air, pure water, dry soil, and wholesome dwellings.

We are glad to welcome such teaching as this from the pulpit, and also to find that at a meeting during the Congress of the Church of England Sanitary Association it was resolved to send the following memorial to the President of the Local Government Board:—

"Your memorialists represent a society which has for one of its objects to aid in securing for all the greatest possible immunity from infectious diseases; your memorialists ask you to take such steps as shall render imperative by law destruction before burial of the infectious germs remaining in the body when death has arisen from cholera or from any other disease communicable by germs."

Very glad indeed are we to welcome Dr. FARMY'S letter of last month. He writes:

"Just a line to tell you what is going here.

1. The new Chiaugchiu Hospital has been bargained for, and is already in process of building. So far there has been no opposition, as I had anticipated; and for this I am truly thankful to our Heavenly Father.

2. The Rev. A. L. MACLEISH, M.A., M.D. (Edinburgh), of the E. P. Mission, Amoy,

who but two years since had returned to China to resume his successful hospital work for a second term of service, has been compelled, by family reasons, to indefinitely give up the work he loved so much and return to England. This is much to be regretted, as Dr. MACLEISH is a man of ability, genial kindness, and good nature. He is a great loss to the E. P. Mission in particular and to us his medical friends in general.

3. An epidemic of "fever," the nature of which has not been declared, is reported to have swept over Amoy—or rather Koo-lang-su island—during the months of September and October. About the same time a similar epidemic visited Chiangchiu. A small number of the cases I saw were complicated with pulmonary mischief; and in two instances with aphasia, while in one with melæna. These latter ended fatally."

From Dr. S. S. MCFARLANE as genially as of yore "You will have heard ere this of the safe arrival of my colleague and family from home and in the full enjoyment of health and strength again. He brings reinforcements with him in the persons of one lady missionary and two "lay" evangelists. I am happy to announce that since their return we have had the pleasure of welcoming another "lay" missionary into our circle. Having arrived but four days ago he of course has not got a hold of the language, but the awkward thing about it is, that when we address him in English, he doesn't understand a word."

[Although we forebear claiming a very extensive philological knowledge, still we feel, in justice to our friend, that we ought to here express our views with regard to this very interesting statement. We believe that the fact of the new arrival not having obtained any very satisfactory hold of the language in four days, is not *altogether* indicative of any *marked* lack of 'brilliancy,' neither in our opinion is an inadequate

knowledge of English necessarily to be condemned. We would suggest Gaelic.](—(Ed.)

We have pleasure in acknowledging a long pleasing chatty letter from Dr. HERBERT PARRY, Ch'entu. We quote:—

"It is about a year since my last communication, and perhaps I cannot do better than just report in summary how the time has been occupied since then.

On returning from the hills, we re-visited our stations at Meicheo and Tanlin, and received a cheering token of quiet progress in the work in the baptism of six persons, three in either place.

We just returned in time to witness the triumphant 'home-going' of our worthy Bible woman, after about ten years of earnest service; she herself being the first to confess Christ by baptism in the city of Ch'entu (as far as Protestant missions are concerned).

With her, indeed death had lost its sting and victory was her's through Jesus our Lord.

After renovating our little ward we reopened in November and from that time until April we had about twenty in-patients, all of the poor labourer class. Of these men, one died in the ward, a poor fellow who came with intense inflammatory œdema of one leg, ending in diffuse suppuration of whole limb from the knee, and acute lung disease. He came with a history of a mournful succession of, severe diseases—fever, then ague, then paralysis and then this leg to crown all.

One bit of information I got from this man incidentally, fresh to me, was that one cure for ague is when the fit is coming on to make for the nearest water and jump in bodily, by which means the ague-imp may be sufficiently scared to induce him to take his flight forthwith.

This poor fellow after repeated attacks, had followed this plan in the midst of winter jumping into rice field water, he said that he got very cold but the ague left him and returned not.

I live the hope that this man did rest by faith in Jesus Christ, before the end came.

For the rest, acute suppurations of the limbs, carbuncle and diffuse scapular abscess, deep and large ulcers, paralysis (hemiplegia), multiple sinuses over buttock, malignant growth of glans penis account for them, and though it is impossible to keep track of these poor men after leaving, we have the comfort of knowing that the seed has been sown day by day while with us, that may bear fruit in ways and times we shall never fully know here.

An article in June No. with illustration, on Foot-binding, re-calls another little girl who attended dispensary this spring, losing one-third of one foot as result of gangrene following frost-bite and binding combined, the stump of the foot was saved and healed. Amongst dispensary patients I may also mention an old woman with sloughing carbuncle laying bare the whole neck to the muscles, leaving intact the integuments over the throat, the old lady full of gratitude and daily crying to the Lord, pulled through in a surprising way considering her age and poverty.

After closing the ward in April, I again visited Meicheo and Tanlin, finding seven persons awaiting baptism; three of them being father and two sons, and two others a husband and wife, and two others the wives of Christians, and one other the youthful son of the evangelist.

In May with our family we left Chentu to pass the summer in this district, where there is a very pleasantly situated station among the hills about forty miles from this city of Paoning.

Meantime daily seeing of a few country patients, and attendance on two of the ladies of our mission, in maternity, are the medical accompaniments of a summer holiday full of God's mercies.

We expect to be back in Chentu about end of September, and so I have as you see reported myself up to date.

Dr. YARDLEY TAYLOR writing from Pao-tung Fu, is of opinion that our silence is oppressive inasmuch as we haven't. . . . well—dunned him—for some time past. We would (respectfully, of course) refer him to pages 186 of No. 3, Vol. VI., and 58 of No. 1, Vol. VII. Then Dr. TAYLOR goes on to delicately hint that he may not be quite up to the times. We admit the probability (nay, the almost certainty), but we do not think he need be too much alarmed at the idea of being *quite alone*, in this respect.

A few kindly lines come to us from our President from Chefoo, the cheery letter of old giving place to the one of sorrow, now received, and a sorrow too, in the which, we too needs have a share. "Our kind genial old friend and brother Dr. NEVIUS has been taken away from us." The circumstances of his death, in Dr. DOUTHWAITE's presence were peculiarly pathetic. "We were sitting in his office talking over various matters when he suddenly fell forward. I caught him and laid him gently on the floor and all was over." Then the pity of it all for the poor invalid widow. "NEVIUS was a splendid man in every respect, and will be so greatly missed."

BIRTHS.

- At Chi-chou, North-China, on Nov. 7th, the wife of Mr. SEWELL S. McFARLANE, L.R.C.S., L.R.C.P., of a son.
- At Seoul, Korea, 10th November, the wife of Dr. W. T. HALL, of a son.
- At Chungking, on the 18th Dec., the wife of CECIL T. DAVENPORT, F.R.C.S., of London Mission, of a son.

MARRIAGE.

- At H. B. M.'s Consulate, Hankow, on 7th Sept., by the Rev. Griffith John, D.D., THOMAS GILLISON, M.B., C.M., to Miss ELIZABETH MAY HARRIS, L.R.C.S. and P., Edin., both of the London Mission, Hankow.

The China Medical Missionary Journal.

DEATH.

At Han-chang-fu, Shensi, on the 12th Oct.,
ROBERT HENRY WILSON, son of Dr. and
Mrs. WILSON, aged 9 months.

ARRIVALS.

At Shanghai, 7th Oct., Dr. W. T. SEYMOUR,
for Tungchow, and Miss H. B. DONALD-
SON, M.D., for Chi-ning-chow, both for
the Presbyterian Mission.

At Shanghai 10th Oct., Miss M. E.
CARLTON, M.D. (returned), for Foochow,
and Miss ANNA D. GLOSS, M.D., for the
Methodist Mission.

At Shanghai, 19th Oct., Dr. and Mrs. B. C.
ATTERBURY and child (returned), Peking.

At Hongkong, 25th Oct., Dr. H. WITTEN-
BERG, for the Basel Mission.

At Shanghai, Nov. 14th, Dr. H. T. WHIT-
NEY, wife and 3 children, with two
children of Dr. KINNEAR, and Miss K. C.

WOODHULL, M.D. (all retu. and
Miss NIEBE, M.D., for America and
Mission, Foochow; Dr. and Mrs. O.
IRISH, for M. E. Mission.

At Shanghai, Dec. 19th, Dr. F. B.
MALCOLM, for Amer. Bapt. Mission, West
China.

At Shanghai, Dec. 20th, Mrs. J. L. WY-
KOFF, M.D., for Ame Bapt. Mission,
West China.

DEPARTURES.

From Shanghai, 9th Nov., Dr. and Mrs.
M. WESTWATER and family, Scotch Pres-
byterian Mission, for Scotland.

From Shanghai, Nov. 25th, Mrs. SCHOFIELD
and 2 children, for England.

From Shanghai, Dec. 15th, Dr. W. R. and
Mrs. FARIES and 2 children, for a visit
to U. S.



